

ELEMENTS OF MEDICINE;

OR,

A TRANSLATION

OF THE

ELEMENTA MEDICINÆ BRUNONIS.

WITH LARGE

NOTES, ILLUSTRATIONS, AND COMMENTS.

BY THE AUTHOR OF THE ORIGINAL WORK.

IN TWO VOLUMES.

VOL. II.

L O N D O N :

PRINTED FOR J. JOHNSON, N^o 72, ST. PAUL'S
CHURCH-YARD.

M DCC LXXXVIII.

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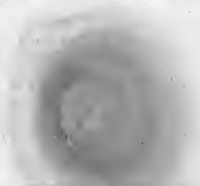
THE ELEMENTS OF MEDICINE

OF

MORTALITY

AND

THE CAUSES OF DEATH



THE
ELEMENTS
OF
MEDICINE.

CHAP. IX.

*A Comparison of the different Parts of the
Sthenic Plan of Cure with each other.*

CCLXXXI. **A**S, in the sthenic diathesis, bleeding is the most powerful remedy of all others, being that, which completely carries off a stimulus, as much more powerful *than any other*, as it is directly applied to a greater extent over the system; consequently, as often as the diathesis is very high, it should be freely used; but never risked during predisposition, and sparingly, or not



at all, ventured upon in diseases of a gentle nature; in which other remedies should be preferred (*a*).

CCLXXXII. The next place of importance to *bleeding*, when heat and other stimuli are guarded against, is claimed by cold. Heat is always hurtful, and still more so after a previous application of cold; but it is most hurtful, when it is also combined with other excessive stimulant powers. Cold is always of service, and in proportion to its degree; provided foreign stimuli, blended with it, and overcoming *its debilitating effect*, be cautiously shunned.

CCLXXXIII. The third place in rank after these remedies is claimed by vomiting and purging and sweating. These evacuations have a powerful effect in removing sthenic diathesis, and therefore do they, with great advantage,

(*a*) See above, par. CCLXIX. With the exception of peripneumony, phrenitis, and violent and mismanaged cases of the small-pox and measles, and rheumatism; in the last in their mild state, as well as all the other sthenic cases, the lancet should never be unsheathed. That is to say, in seven cases out of ten even of the sthenic diseases, which are the only ones that either require or bear any degree of it, the practice must be laid aside, and never thought of in any asthenic affections whatever. Consequently, the cases, where it is in any degree allowable, are exceedingly few.

superfede

superfede the oftener imaginary, than real, necessity of profuse bleeding. They are often alone sufficient to restore the healthy state.

CCLXXXIV. Together with all these, the articles of diet, the stimulant operation of which prevents the benefits to be received from them, should be sparingly used, and that in *exact* proportion to the degree of the diathesis. This precaution alone is adequate to the removal of predisposition, and often to that of diseases, especially those that depend upon a small and gentle diathesis.

CCLXXXV. Also with all *the remedies yet mentioned* we must conjoin rest, when the diseased state has taken place, and moderation in motion during the period of predisposition (*b*).

CCLXXXVI. The practice of the common run of physicians is very bad, in going too much upon any one of the remedies *that have been mentioned*, and overlooking all the rest, or enjoining them carelessly. We are

(*b*) So considerable a stimulus is exercise, that, if in such a degree of sthenic diathesis, as that, which forms only predisposition to the diseases depending on it, exercise may of itself be sufficient to effect the conversion of the predisposition into the actual diseased state. Often has the highest of these diseases, and even peripneumony itself, been brought on by violent exertion in exercise.

not to depend upon bleeding alone, not even in peripneumony itself; but employ all the rest either in concourse or succession.

CCLXXXVII. The disturbed functions, or those that are impaired (*c*) not from a debilitating cause, admit of the general *plan of cure*, and no other.

CCLXXXVIII. The symptoms of debility, which are the consequence of the violence of the sthenic diathesis, in the progress of the disease, and that threaten death by indirect debility, ought to be prevented by an early interposition of the remedies.

CCLXXXIX. The same early cure serves to prevent suppuration, effusion, and gangrene, which arise from ultimately excessive excitement, passing into indirect debility.

«. If sthenic diathesis (*s*) should happen to be conjoined with a local disease, the former, to prevent it from aggravating the latter, should be removed by its own respective remedies.

(*c*) See above, par. CXLVII. CLI. CLXXII.



C H A P. X.

The same Comparison of the different Parts of the Aſthenic Plan of Cure with one another.

CCXC. IN aſthenic diathetiſis, and the diſeaſes depending upon it, reproducing the *loſt* quantity of blood, is the moſt powerful remedy, when we, at laſt, find acceſs to it, as being the only means of reſtoring a ſtimulus of ſo much more power and efficacy, that its direct application is made to ſo great an extent of the ſyſtem (*a*). For which reaſon, as, in every degree of debility, the quantity of food, from which only blood is made, that is taken and digeſted, is always in an inverſe proportion to the degree of debility (*b*); ſo much, and of ſuch a form, as can be taken and digeſted, ſhould immediately, and without loſs of time, be adminiſtered; on which account, if the debility be moderate, giving

(*a*) Compare this with par. CCLXXXI. above, and with all the paragraphs from CXXXI. to an CXXXVI.

(*b*) Or in a direct proportion to the degree of excitement.

solid animal food sparingly each time, but often repeated, is proper and suitable. When the debility is greater, and solid animal food can neither be taken, nor, if taken, digested, broth made from it, as rich as possible, and as free of fatty matter, should be carefully administered (*c*). *With this view* to excite the stomach, and render it more fit for receiving and digesting the food *just now* mentioned; the diffusible stimuli, such as different kinds of wine, and more particularly still opiates and other remedies of similar powerfulness, ought to be constantly employed; sparingly at first, and afterwards more fully, if the debility be direct: after which, the use of the diffusible should be gradually laid aside, and, in the same gradual way, recourse be had to a larger and larger use of the more durable and natural stimuli (*d*). In *the case of* indirect debility, we should also gradually proceed from the highest to the lowest force of stimulus, as has been mentioned formerly (*e*), and, in an inverse manner, go on from the smallest force of durable stimulus to the greatest. Lastly, in that

(*c*) Compare this with par. CCLXXII.

(*d*) See last note (*e*), and compare it with this.

(*e*) Par. CIII.

moderate debility, which constitutes the predisposition to asthenic diseases, it must always be kept in mind, that an abundance of blood is the greatest support of health (*f*), and that we are not to give way to a weakened appetite (*g*).

CCXCI. To the vital fluid, and the several means of encreasing its quantity, which have just now been mentioned (*b*), the next remedy in the cure of asthenic diathesis is heat; as being the power by which animals (*i*), in their first formation, in their growth, and most especially in their decay, are brought forth into existence, are nourished, and acquire vigour, and afterwards, through *the several degrees* of their declining state, are to

(*f*) How widely different is that maxim from any that have hitherto ever been received in the profession of physic; in which flying to the use of the lancet, was the first thought that arose in the mind, with respect to the idea of cure of every disease; and bleeding and evacuations, through the course of each disease, the only remedies.

(*g*) This is equally the reverse of the general practice of inanition in almost every disease, without a single exception.

(*b*) The addition in MS to the text for these last words is, "et relatis ejus copias augendas rationibus."

(*i*) And wemay add vegetables.

some extent upheld, till their excitement is all extinguished (*k*). By heat, understand that point of external temperature, which intervenes as a mean betwixt cold, as it is called, and high heat (*l*); under which our sense of temperature is agreeable and pleasant; under which the body is neither weakened by that relaxation which produces sweat, nor by that torpor (*m*) which cold begets, *where the debility is*, in this case, direct, and in the former indirect; under which the functions of the whole body are excited, called forth, and, as it were, cherished in the sun beams; without which all other stimuli are of no effect (*n*).

CCXCII. Such a temperature as that is suited to every state of the body, but still more to

(*k*) Compare this with par. CXII. and CCLIV. and CCLX.

(*l*) The Latins have a single word for this which we want; the word is *ardor*.

(*m*) Or benumbed state.

(*n*) It is plain, that though all the other powers should be in full action upon our bodies, and that with the effect of keeping up in them a due degree of excitement over all; yet plunging any person naked into a dense medium, suppose that of water, in a degree of cold at or under the freezing point, will most certainly, in an instant, put an end to life.

its different states of debility; because, *in the latter case*, as the excitement is deficient from other sources, there is so much more occasion for this stimulus, which is much easier come at than many others, *to supply such deficiency*. Hence, both in other diseases of great and direct debility, and particularly in fevers, heat is found to be of the greatest benefit, and above all others in all such complaints of that kind, as cold has had any share in producing (*o*). In the same diseases cold must be most carefully avoided, as it is always of a directly debilitating operation, and never of service but in sthenic diseases, and those that are in a progress to indirect debility (*p*). We must be equally on guard, in every degree of asthenic diathesis, against excessive heat; which is equally debilitating as cold, and equally productive of atony, laxity, and gangrene of the

(*o*) See again, par. CCLX.

(*p*) The operation of cold has been so widely mistaken by all physicians, that it comes to be of the greatest consequence to understand the several propositions stated in this work with regard to it. For that purpose consult par. XXXVII. and the note upon it marked *θ*. as well as par. CCLX. and all that has been said upon the subjects of either heat or cold in Chap. I. of the second Part, from CXII. to CXXIII. as also par. CXX.

vessels, as well as stagnation and corruption of the fluids, in consequence of the inactive state of the vessels (*q*).

CCXCIII. As refilling the vessels is the greatest remedy, because its direct stimulus is applied over such an extent of the system; for that reason heat, which is immediately applied to the whole surface of the body, and directly affects the body to that extent, should be next in virtue *to it*.

CCXCIV. Since vomiting, purging (*r*) and sweating (*s*) are so powerful in debilitating, as to claim the third place of rank in the sthenic cure; they must, for that reason, by the same debilitating operation, be equally hurtful in asthenic diathesis, and the stimuli that stop their operation; and, consequently, both the other stimuli, and particularly the diffusible ones, equally serviceable.

CCXCV. To run over the list of stimuli, that answer this purpose, we must begin with the cure of that slighter loss of fluids *that*

(*q*) With this proposition compare par. CXV, CXVII, and CXVIII.

(*r*) See par. CCLXXXIII.

(*s*) See par. CCLV.

occur in those diseases, and proceed to the more violent kinds of them.

In a slight looseness of belly, such as happens in predisposition to asthenic diseases, or in the slighter degrees of the latter; it will be commonly sufficient to abstain from vegetable food, and from weak, watery drink, or that *kind of it that ferments in the first passages*, such as the several drinks made from barley, called beers; to use animal food, as well seasoned and as rich, as possible, and free of all fatty matter; to drink pure wine, or spirit, in different degrees of strength; and to take *such exercise as is* gentle in degree, and often repeated (*t*).

CCXCVI. When the belly is still looser, and *with that affected* with gripes and pains, as happens in the violent diarrhæa, and in the dysentery in which the loose stools are accompanied with vomiting; or when, without these troublesome symptoms *affecting* the belly, distressing vomiting is an urgent symptom; or, when the vomiting is conjoined with a moisture upon the surface, or macerating sweat;

(*t*) See and compare, for the more clear understanding of this paragraph, the CCLXVI, CCLXVIII. CCLXXIII.

or when sweat is the only urgent symptom, and *as such* wastes the strength, exhausts the body, and dissipates the fluids: in all these cases, we must have immediate recourse to the most diffusible stimuli, and check such an impoverishment of the fluids *of the system*.

CCXCVII. In which case, the use of stimuli will be so much the more necessary, that other symptoms usually accompany those increased excretions. Their great efficacy, and stimulant power, is proved by their singular virtue *in removing* those and other *symptoms* in fevers and other most violent sthenic diseases, nay, in the article of death itself, from ultimate debility.

CCXCVIII. Accordingly, in spasms and convulsions, in the internal, in the external, parts (*u*), in bleeding discharges (*x*), in the direful delirium of fevers, and other very violent diseases (*y*), in asthenic inflammation (*z*); when those stimuli, which have a more permanent influence, fail, or act to no *good* pur-

(*u*) See par. CXCIV. and CXCVI.

(*x*) See par. CXXXIV. *x*. \downarrow . and CCXXXII. and the subjoined notes.

(*y*) See par. CXCVIII. CC. CCI.

(*z*) See par. CCIV. to CCXII.

pose; the virtue of the diffusible stimulants, the principal of which is opium, is eminent.

CCXCIX. As, therefore, the energy of that stimulant virtue serves to check looseness of the belly, and vomiting, or even sweating, when these symptoms are gentle, and depend upon a less violent *degree* of the cause; so that degree of its power, which is fitted to check these affections in the greatest height of their violence, and to re-establish the state of health, is by far the greatest of all the powers, which are ever applied to the human body; which may be known from this proof, that when the action of all the other powers by which life is supported, is of no effect, they turn aside the instant stroke of death.

CCC. The most weak degree of the diffusible stimuli (*a*) are the white wines, except madeira, canary, good sherry; and the red wines, except port and spirits procured by distillation, so diluted, as to equal the strength of the wines, or exceed it a little. Still higher than these are the latter *taken* pure, and higher still, those that have undergone many rectifications. The strength of which is in pro-

(*a*) See above par. CXXVI. ο. π. ε. ς.

portion to the quantity of water expelled, and of the alkatriol retained.

CCCI. A higher place in the scale is claimed by musk, volatile alkali, camphor; our trials of which are not yet so complete, as to ascertain its force exactly: next comes æther, and, last of all, opium (*b*). Of all which, however, unless, when, as they sometimes do, they have lost their effect by a continuance of their application, and are, therefore, substituted in place of each other, for the sake of a renewal of the operation of each; and when, in that way, we make the complete round of them, for the sake of repelling extreme debility; *in every respect*, the preparations of opium are sufficient for most purposes of high stimulating (*c*).

CCCII. Together with all these (*d*), regard must be had to *the articles of diet* (*e*).

(*b*) A few words with respect to the rank of æther in the scale are erased, as not being correct in point of fact.

(*c*) The original is corrected as follows, “*opii formæ satis in plerisque altius stimulandi usus sunt.*”

(*d*) They are animal soups, and solid meat (CCXC.) heat, (CCXCI.) stimulants (CCXCV.) diffusible stimulants (CCXCIX.)

(*e*) See par. CCLXXXIV.

And,

And, as in great debility, and the diseases depending upon it, of the only suitable matter, that is meat, nothing solid can be taken; for that reason, the matter to be used must be fluid, but strong. Animal soups should be given sparingly at a time, but repeatedly, in proportion to the degree of debility, and jellies, both along with the diffusible stimuli. After that, when, chiefly by means of the diffusive stimuli, the strength is in part restored; at first solid meat, likewise in sparing quantities, but often repeated; then *given* in more plentifully, and at greater intervals, should be taken. *In which progress* the patient should gradually recede from the use of the diffusible stimuli.

CCCI. When now the diffusible stimuli are altogether laid aside, and the convalescent is given up to his usual diet, his usual manner of living, and that management, which persons in health commonly observe, (only that more care is taken, *than in perfect health*, to avoid any thing that might prove hurtful); then it is, that every attempt of the physician should be directed to the consideration of the strength of his patient, as returning, but not yet

yet *quite* established (*f*). In his movements he should first use gestation, and then gentle but frequent exercise, and the latter should always end in some, but not an high, degree of fatigue. His sleep should neither be too long, nor too short, lest the former produce direct, the latter indirect debility (*g*): the most nourishing food should be taken, but not in too great a quantity, lest the excitability of the stomach be worn off, without the attainment of a due degree of vigour; but it should be often taken, in order to reduce the excitability gradually, which only serves to produce proper vigour, and reduce it to its half wasted state (*b*); that degree of heat, which stimulates, should be employed (*i*), and both excess of it, as well as cold, as they are equally debilitating, should be avoided; the patient should breathe pure air, and avoid impure; he should keep his mind in gentle action, observe moderation in his passions, and court agreeable objects of sense; he should have no companions around him, but agreeable ones,

(*f*) See above par. CV. and CIX.

(*g*) See par. CCXLII. and sequent.

(*b*) See above the XXIV. XXV. and XXVI.

(*i*) See par. CXII.

and be in frequent gay entertainments; he should travel through a pleasant country, and be moderate in love. Neither is the management of the senses, and any return of contagious matter to be neglected.

C H A P. XI.

How the Remedies should be varied.

CCCIV. AS the hurtful powers, that produce predisposition to diseases, or diseases themselves, act some on one part, some on another, with somewhat more force *than on any other equal part*; and as such a part is commonly that which they directly affect (*a*); so the powers, which are employed as remedies, in order that their general effect may reach the whole body with the more certainty, should be, *in the same manner*, differently applied to different parts.

CCCV. The cure of any sthenic disease whatever, is improperly entrusted to bleeding alone, though that is one of the most powerful of the debilitating remedies. And the reason is, that, though the excitability is sufficiently reduced *by that remedy* in the greater blood-vessels, perhaps too much, yet in the extremities of these, as well as in the rest of

(*a*) Par. XLIX.

the body, it is not sufficiently reduced (*b*). Nor is the alternation of bleeding with purging a perfect sort of cure; because, though the excessive excitement be sufficiently, and more than sufficiently, removed in the greater blood-vessels, and in the innumerable small arteries, whether exhalant or mucous, which discharge their fluids into the intestines; yet, neither on the perspiratory terminations of the arteries, nor on the rest of the body, is an equal debilitating energy exerted: for instance, the small vessels which open into the stomach, are not sufficiently relieved of

(*b*) The action of every exciting power, whether salutary or hurtful, or curative, always extends over the whole body, the whole seat of excitability, but still with the inequality mentioned in the fourth Chapter of Part First. This is the basis of the distinction with respect to the present subject: which is, that, as every power acts most effectually on the part where its action is immediately exerted, it is better to trust to a number, every one of which possesses that advantage, than rely on any one, however powerful otherwise; as by that means, whatever be the indication, whether it be to encrease or diminish excitement, the effect will be more equally produced over all in consequence of their being a number of parts that have had a strong action exerted upon them.

their distending (*c*) load. And although vomiting (*d*), which has been improperly left out of the cure of sthenic diseases, and *still more* improperly employed in *every one of* the asthenic, should be conjoined with the two remedies just now mentioned, even that would not be enough to produce an equality of diminished excitement; as there would still remain in the perspiratory vessels, the same state of the excitement, which has been mentioned, as in the rest of the body, that is not vascular. In violent sthenic diseases, therefore, after diminishing the diathesis, and in the slightest from the beginning of *the disease*, the addition of *the operation of* sweat to the evacuations that have been spoken of, will produce a more equal diminution of excitement, a more perfect solution of the disease. For by means of this evacuation, not only from the larger blood vessels, in the interior parts of the body, but from an infinity of outlets both of the external, and internal surface of the body, an immense quantity of fluids, every where distending, and, *thereby*, pro-

(*c*) and therefore stimulating load, the stimulus in any vessel being the quantity of its fluid.

(*d*) See par. CCLXIX.

ducing

ducing a very great sum of excitement, is withdrawn. But the matter stops not even here. For, since in slight sthenic affections much nourishing food, and in them all, too much, can be taken; the consequence of that must be, that, however much the quantity of the blood and other fluids has been diminished, if the food, which is the only *power* that can produce blood, continues to be taken, all the vessels, in proportion to the quantity that has been taken, will again go on to be filled, and to be fired with the fewel of excessive excitement. To prevent which inconvenience, and to diminish excitement, still with greater equality over the system; abstinence, or an allowance of vegetable matter in a fluid form, and watery drink, will have a very great effect. But neither does the matter end here. For, if, after taking all the precautions and securities that have been recommended, the degree of heat, that proves hurtful from its stimulus, be allowed to approach the external surface of the body; it will produce another inequality of excitement, however much that may have been properly and equally diminished by the other means of cure. Where-

fore, as the sthenic diathesis depends so much upon the stimulus of heat, directly affecting the skin (*e*), and is, on that account, prevalent in the skin in preference to other parts; to make sure of rendering the diminution of excitement as equal as possible, the debilitating effect of cold should be opposed to the high degree of excitement, which the heat has produced. When, at last, all the *directions*, which have been so fully pointed out, have been executed, *still*, to re-produce the equality of excitement, suited to good health; it remains, that we be on our guard against the stimuli that arise from the intellectual functions and passions. For, as they have a great effect in producing sthenic diathesis (*f*), so the guarding against them, or prevention of them, must be equally effectual in removing that *diathesis*, and in re-producing that equality of excitement, upon which health depends (*g*).

CCCVI. If

(*e*) See par. CXIII.

(*f*) See par. CXXXVIII. CXL.

(*g*) As the most healthy state of man is occasioned not by the operation of any one, or of a few exciting powers, but by the united operation of them all; so
neither

CCCVI. If the cure of sthenic diseases hitherto has consisted in bleeding, purging of the belly, and in the use of refrigeration in a few cases; and, if the other objects of attention, which have now been so fully treated of, have either been totally neglected, or mentioned in a slight way, by the by, and as if they had been of no consequence, and, in the cures which were prescribed in that way, not reduced to any principle; it will easily *now* appear, from what has been said above, and in other parts of this work, how much the knowledge of those diseases has been improved, both in the practical and reasoning part: and it will now, at last, be found a certain and established fact, that both the nature and true theory of sthenic diseases, as well as the practice of the cure of them, considered either as an art and imitative, or as rational and scientific, has been discovered and demonstrated.

CCCVII. As the debilitating or anti-sthenic (*b*) remedies are the same with the as-
neither is its re-establishment to be effected, but by the same united operation of all the remedies, the last of which come to be the ordinary means of the support of the healthy state.

(*b*) See par. XC.

thenic hurtful powers (*i*); so the sthenic remedies (*k*) are also the same as the sthenic hurtful powers.

φ. And as the remedies of asthenic diathesis (*l*), to whatever part they are applied, also stimulate that part more *than* any other; some of them one, others another part, *and* encrease the excitement;

CCCVIII. So, in asthenic diseases, *if we want* to rouse the excitement with more equality, and restore the *lost* strength, we must not depend upon the most diffusible stimuli alone (*m*). For, while they indeed increase the excitement over the whole body, at the same time, they produce that effect in the stomach with greater force *than any where else*. Hence, even from the beginning of the cure, when almost no food can be taken, and other

(*i*) See par. CCCIV. to CCCVII. the present one.

(*k*) See par. XCI.

(*l*) All from the number CCCVII. to this reference, or in the original to "recta admoventur," is a correction of the original in these words, "Ut auxilia debilitantia, seu antisthenica (XC.) eadem, quæ noxæ asthenicæ (CCCIV. ad CCCVII.), ita auxilia sthenica (XCI.) eadem quoque, quæ noxæ sthenicæ, sunt. Utque diatheseos asthenicæ remedia, cuicunque parti," &c.

(*m*) See par. CCCI.

durable and more natural stimuli (*n*) are most imperfectly applied; yet, together with the diffusibles, soups (*o*) should be given, and as much haste as possible should be made to bring the patient to take solid meat, while care, at the same time, should be taken to apply a proper degree of heat. For, by this method, we most properly secure both the internal and external surface. Nay, in the same way, we remove that inanition of the vessels which takes place in asthenic diseases in an exact proportion to their degree. For, as in that abundance of blood, which is the most powerful means of bringing on sthenic diseases, there is an opportunity of making a quick cure by the immediate taking of blood; so it is only by insensible, gradual, imperceptible (*p*), and obscure successive steps, that we open the access to the removal of that penury of blood, which proves the most hurtful power in asthenic diseases, and effect the filling of the vessels again.

(*n*) as that of pure air, exercise, the stimulus of the motion of the blood and other fluids in their respective vessels

(*o*) See par. CCCII.

(*p*) “ & cæca seric is added in MS.

CCCIX. After

CCCIX. After this management of both surfaces of the body, and this partial filling of the vessels; still the excitement is not equally enough increased. To effect this further in part; at the same time some most diffusible stimulus, suppose any preparation of opium, should be administered, and the little animal food, *or meat*, that there is any appetite for, and that can be taken and digested, should be added. The idea of giving food is evident from the late explanation given about soups (*q*). But, the use of the more durable, and less diffusible, stimulus depends on this, “that when the excitability is worn out by any one stimulus, any new stimulus finds excitability, and draws it forth, and thereby produces a further variation of the effect.

CCCX. Hitherto the stimulus of the motion, by which all the muscles, which, from their situation on the surface of the body, by their contractions propell the blood along the veins to the heart, are thrown into action, has not been supplied (*r*); and, therefore,

(*q*) See par. CCCVIII.

(*r*) See par. CXXXVII. *a. c. γ. δ.* CCLXXIII. CCCIII.

both

both upon account of the emptiness of the vessels, and the slow circulation from the want of that impulse, the excitement is not sufficiently aroused over all that tract. After the strength has, then, been so recruited, that rich food can now be taken, the body can now be roused, first by foreign, then by its own organs, of which the former is called gestation, the latter exercise, and also refreshed by air; *when all that has happened*, then it is, that the excitement is further raised in several points, and becomes more equal upon the whole.

CCCXI. The last stimuli to be mentioned, which, *along with those already mentioned*, have a natural tendency to produce an equalization of excitement over the whole system, arise from the action of the mind, the energy of passion or emotion, and a still greater purity of air, than is attainable by persons shut up in a room (s). In this state of convalescence, the same *management*, which

(s) See and compare with these last mentioned stimuli the following paragraphs CCLXXV. CCCLXXVIII. CCLXXIX. π.

was formerly mentioned upon the going off of sthenic diseases, perfectly applies (*t*).

CCCXII. The stimulant plan of cure, in all its parts, is new, whether the reasoning part, or the merely practical be regarded; and, whether the cause and the exciting hurtful powers, or the indication of cure and the remedies, be considered. May it, therefore, be put as a question, whether the whole doctrine, which has hitherto been delivered, has, at last, brought forward clear

(*t*) The convalescent state from either of the two general forms of diseases, or from local ones the effect of which had drawn the whole system into consent, is much the same; being a state of some remaining debility in all; in the sthenic from the excitement either going too low, by the remedies being pushed to some excess, or not equally diffused over all the parts in consequence of the natural supports only beginning to be brought fully into play; in the asthenic from the perfect point of health being not quite gained, either from the stimulant remedies not having been carried exactly up to 40, or from some of them having been carried further than the wasted excitability could receive them with invigorating effect, and thereby an inequality left upon the whole. The convalescence, from the general effects upon the constitution sometimes arising from local diseases, is to be explained upon the principles laid down, with respect to the two other cases of convalescence.

proof, that the art of medicine, hitherto conjectural (*u*), inconsistent with itself, altogether incoherent, is now reduced to an exact science, proved not by mathematical principles, which is only one kind of probation, but by physical ones, and established by the certain testimony of our senses, nay, and by the very axioms of the mathematical elements?

(*u*) Celsus says, *ars nostra conjecturalis est*. And every man of sense, whether of the profession, or out of it, has held the same sentiments of it. Nothing is more glaring than the contradictions in medical writings and reasoning of every kind, nothing ever could be more incoherent. If a piece of knowledge, that sets out with a fixed principle, which applies to all the parts of the detail, while they reflect on it, both illustration and confirmation, be entitled to be considered as a science, the reader is desired to consider, how far that criterion will apply to this doctrine. The pedantry of mathematicians has contributed as much to bring their science into disgrace, as any other circumstance, particularly in allowing no sort of probation, but that which is made out by lines and diagrams; while, except the elements of that science, every application of that department of knowledge has led to as many false conclusions as any other. If they will not allow the proof, that arises from our feelings, compared with those of all men, whose organs of sense are not deranged, what will they make of their own axioms? They must admit of other probation; while human reason holds its reign, truth and falsehood will be discriminated, without regard to such empty and useless prepossessions.

C H A P. XII.

As the Action of all the other Powers, that act upon living Bodies, is the same, that that of the Remedies is also the same.

CCCXII. AS it is found certain, and proved, that the common effect of all the exciting powers is precisely the same, to wit, the production of the phænomena peculiar to life, that is, that sense, motion, intellectual operation, and passion and emotion, are the same; for what else is the effect of heat, of food, of seasoned food, of drink, of the blood, of the colourless fluids secreted from it, and of the air, among external bodies; what else in the functions of the living body itself, is the effect of muscular contraction, of thought, of the passions, and of sensation, but to excite, preserve, and continue as the sustaining cause of those functions in common to animals? And, as it is from that evident, that the operation of all the same powers is also the same; (for it must be granted, that the same cause, by an universal law in nature, tends to the same effect:)

effect (*a*):) and further, as the operation *betwixt cause and effect* depends upon stimulating (*b*), and that stimulus produces all the phænomena of life, health, disease, and those intermediate degrees between both, which are called predispositions (*c*); from these certain and demonstrated facts it follows, and must be admitted, that the operation of the remedies, both in sthenic and asthenic diseases, is the same. For, if there is no difference betwixt health and sthenic diseases, except an excess of excitement in the latter, and none betwixt the former and asthenic diseases, but deficient excitement in these last, what else can the operation of the remedies, to remove sthenic diseases be, but to diminish, and of those that remove the asthenic, but to encrease the excitement (*d*).

CCCXIII. Whatever thing produces the same effect as another, or several things, it must be the same thing as each of them, each of them the same thing as it, and every individual of them the same thing as every other individual.

(*a*) See par. XX. with the annexed note.

(*b*) See XIX. and XXII.

(*c*) See XXIII.

(*d*) See LXXXVIII.

ζ. In sthenic diseases, bleeding (*e*), vomiting, and purging (*f*), sweating, abstinence (*g*), rest of body and mind (*b*), tranquillity with respect to passion, *all those* restore health by nothing else but a diminution of excitement.

CCCXIV. In asthenic diseases, the administration first of diffusible stimulants, for the purposes of gradually bringing back the appetite for the greatest remedy, food, as well as keeping the food upon the stomach, and of assisting in the digestion of it (*i*), then the application of heat (*k*), then the use of the less diffusible and more durable stimulants, as animal food, without and with seasoning, wine, gestation, gentle exercise (*l*), moderate sleep, pure air, exertion of mind, exertion in passion and emotion, an agreeable exercise of the senses, all those reproduce health, by no other operation, but that of only encreasing excitement.

(*e*) See CCLXXXI.

(*f*) See CCLXXXIII.

(*g*) See CCLXXXIV.

(*b*) See CCLXXXV.

(*i*) See CCXCIV. to CCCII.

(*k*) See CCCII.

(*l*) See CCCII. CCCIII.

C H A P. XIII.

That all the Powers, which support any Sort of Life, or the fundamental Principle of Agriculture, are the same.

CCCXV. AGAIN, are not the powers, which produce perfect health, the same as those, which, by an excess of force, produce sthenic diseases; by a deficiency of force, asthenic, as well as the predispositions to both, are they not the same, with no other variation but that of degree (a) ?

CCCXVI. Further, as we learn from the whole doctrine delivered above, the hurtful exciting powers, which produce sthenic diseases, are the remedies of asthenic; and those which produce the latter, are the remedies of the former (b).

CCCXVII. All the powers, therefore, that support any state of life, are the same in kind, only varying in degree; and the proposition is true, of every sort of life, to its full extent over the animal creation.

(a) See XXIII. LXXIII.

(b) See LXXXIX. XC. XCI. XCIII. XCIV.

Such is the life of animals (*c*). Concerning which, all that has been said applies to the life of vegetables.

CCCXVIII. Accordingly, as animals, in every state of life, have their exciting powers (*d*) in predispositions and diseases, their hurtful exciting powers (*e*) in the cure of both those, their indications, and remedies adapted to each (*f*); all that, in every respect, is precisely the case in plants.

CCCXIX. The powers that support plants, in every state of life, are heat, air, moisture, light, some motion, and their internal juices.

CCCXX. The action of plants also consists in stimulus (*g*); by means of which, the phenomena peculiar to that sort of life, sense, some motion, and verdure, are excited; and the cause of this state is excitement, an effect in common to all exciting powers (*b*).

CCCXXI. Nay, in this case too the exciting powers, when applied in due proportion,

(*c*) See from X. to XIII. inclusive.

(*d*) See LXII. LXVII. LXVIII. LXIX. LXXIII. CXII. to an CXLVII.

(*e*) See the same.

(*f*) See LXXXVIII. LXXXIX. XC. XCI.

(*g*) See XVII. XIX. and notes.

(*b*) See Part I. Chap. II.

produce

produce health ; but their too great or too sparing *action* occasions diseases, or predisposition to diseases ; of which the former depend on an excessive, the latter upon a deficiency of stimulus. Accordingly, excess or scantiness of moisture, excessive heat or cold, by an equality of *hurtful* operation, lead to disease and death, indirectly or directly. And, as the rays of the sun or darkness, when their operation is either too great, or too long continued, prove debilitating, the former indirectly, the latter directly ; so the alternate succession of night to day, of darkness to night, seems to be the effect of an intention in nature, to prevent too great an effulgence of the light of day, or too long a continuance of it, from stimulating either in excess or in ultimate excess, and thereby inducing sthenic diseases, or those of indirect debility ; or to prevent an excess, or long continuance of darkness from producing direct debility, and the diseases peculiar to it (i).

(i) Chap. IV. We have no less proof, than that of the universal feeling of mankind, of the truth of what has been advanced, with respect to the stimulus of light and the debilitating effect of darkness.

CCCXXII. Nor do plants want their excitability, which, equally as in animals, “is
 “ not different in different parts of its seat ;
 “ nor is it made up of parts, but one uni-
 “ form, undivided, property over the whole
 “ system (k).” The effect of which is, that, to
 whatever part of a plant any exciting power is
 applied, its operation, whether in excess, in
 due proportion, or in under-proportion, im-
 mediately affects the excitability over the whole.

CCCXXIII. This effect is also produced
 with the same inequality as in animals,
 being, for instance, greater in any part to
 which its exciting power is directly applied,
 than in any other equal part. And, as there
 are two reasons for that fact in animals, the
 direct impression of the power upon the part
 more affected, and a greater energy of the
 excitability of *a part or relation to which
 it is so applied*, than on that of any other
 equal part (l) ; the very same is the fact with
 respect to plants. Further, as the excitability
 bears a greater relation to the impression of the
exciting powers, on the brain, the stomach,
 and intestines, than on any of most of the

(k) See Part I. Chap. IV.

(l) See XLIX. and addition L. LI.

other parts ; so the part in plants, that corresponds to these parts, is the root, which is affected in the highest degree by the exciting powers. It is the root of plants, in preference to any of their other parts, to which the conflux of moisture is made. The heat there is the best, which is neither excessive, and therefore liable to produce sthenic affection, nor ultimately excessive, and therefore ready to induce indirect debility (both which disadvantages are prevented by the depth of *the ground*) ; nor deficient, or what is called cold, which would bring on direct debility (*m*).

CCCXXIV. But the only use of the soil, through the pores of which the powers that

(*m*) Hence it would appear, that it should be a general rule in ploughing and harrowing to adapt the depth, where the seed is to be laid, to the state of the surrounding temperature. It would seem, when other circumstances are equal, that the seeds of plants may more safely lye superficially in warm than in cold countries. The same fact seems to be favoured by the difference of perfection that planted and natural woods attain in cold countries ; the former, the seeds of which are lodged in a certain depth, turning to better account than the latter, which rise from seeds that have randomly been scattered upon the surface. Might not the hills in the west of Scotland, upon some such principle, be made useful oak forests ?

have been mentioned penetrate, is to furnish that sort of a strainer, by which the powers may neither, from the pores being too patalous, go down in too great quantity, and produce first a sthenic, or too luxuriant a state of the plant, and then indirect debility; nor, from the contractedness of the pores, be insufficiently admitted to the root, and occasion indirect debility, or the decaying state of a plant. But that the soil is not otherwise necessary to the *production of some degree of vegetable life*, is proved by plants often living, to a certain degree, in pure water. That, however, it is useful as a filter, is proved by the good effect of ploughing, of breaking the clods, of dividing the tough clay by lime and other absorbent earths, and by these means relaxing the pores: *On the other hand, we have proof of the same thing in the success of contracting the pores by making ground, naturally too friable, more tenacious with dung, and covering light ground with rags and stones, and thereby keeping in both heat and moisture.*

CCCXXV. From this *view of the facts*, the reason is evident, why every sandy as well as clay soil, when the former has not received, and the latter parted with its toughness, is bar-

ren and unfruitful. Hence it is, that very hot summers and countries are hurtful to clay grounds, by shutting up the pores; and serviceable to friable and lean grounds, by diminishing their porosity. Hence, dry seasons are suitable to low-lying rich grounds, which, from all quarters, conduct a quantity of moisture around the roots of the plants; while rainy seasons are those that answer in grounds that are high and of a thin soil. Declivities facing the north, which are commonly of a thin and poor soil, are cherished and protected by hedges and clumps of trees, and a great number of bare stones, covering every thing, which some persons, of more industry than sense, often remove with hurtful effect; their good effect being to give heat and keep in moisture. But in those places, the declivity of which looks towards the south, there is not equal occasion for such *protection from cold and dryness*, as they, from their more happy situation, are cherished by the sun, defended from the cold winds, and exposed to those which blow from the southern points that are seldom too dry (n).

CCCXXVI. To

(n) While the northern winds, that is, the wind due north, and all the intermediate ones in every point of the

CCCXXVI. To return, *from this digression on agriculture*, to our proper subject; from what has been said upon the cultivation and nature of plants, we learn, that their life is similar to that of animals; that every thing vital in nature is governed by excitment, which the exciting powers only afford; that there is in no living system, whether *of the* animal or vegetable *kind*, any inherent power necessary to the preservation of life; that the same powers which form life at first, and afterwards support it, have at last a tendency to produce its dissolution; that life, the prolongation of life, its decay and death, are *all states* equally natural; that every living system lives in that which it procreates; that the generations of animals and vegetables are in that way renewed, that *the system of* nature remains, and maintains an eternal vigour; in

compass from due east to due west, are cold and dry, and commonly of a tendency to bring snow; the southern, or the winds that blow from any point of the compass towards the south, from the same points of due east to due west, are as commonly warm and moist, and often productive of mild fertilizing rains.

one word, that all the phænomena of nature are fabricated by one single organ (*o*).

There are many circumstances that give reason to believe, that this globe has undergone great changes, and that whatever is now sea, has been land; whatever is land at present, has been sea; and that the fossil *kingdom of nature* has not been more retentive of the respective form of each of its individuals. But whether the last, like animals and plants, have a sort of life, so as, after their manner, to be produced into living existence, to grow, to run through a period equally without growth and diminution of bulk, to decay, to die, and, in death, lose their proper form; the great duration of their age, and the shortness of ours, deprive us of any possibility of learning.

CCCXXVII. As all the motions of the planets, which latter were formed to remain and continue their courses for ever, depend upon this one principle, to proceed straight onward, according to the manner in which all

(*o*) No discovery, of any importance or extent over nature, has yet been made, that does not warrant, as far as the smallness of the number of such discoveries go, the truth of this assertion. See the Introduction to my Observations.

projectiles move, and then by the influence of gravity, which affects them all, to be pulled downward, and thereby, upon the whole, thrown all into circular motions; so, in the lesser and living bodies, with which those greater bodies are filled, that is, animals and plants, of which the whole species remain, though the individuals of each species die; whatever is the cause of their functions, whatever gives commencement and perfection to these, the same weakens, and, at last, extinguishes them. It is not, therefore, true, that some powers are contrived by nature for *the preservation of* life and health, others to bring on diseases and death. The tendency of them all is indeed to support life, but in a forced way, and then to bring on death, but by a spontaneous operation.

PART THE THIRD.

OF GENERAL DISEASES.

THE FIRST FORM, OR STHENIC DISEASES.

CHAP. XV.

CCCXXVIII. **I**N every sthenia, in all sthenic diseases, in the whole first form of diseases (*a*), an universal criterion is encreased excitement over the whole system, evidenced, during the predisposition, by an encrease of the functions of body and mind (*b*), and demonstrable, after the arrival of disease, by an encrease of some of the functions, a disturbance of others, and a diminution of others; in such sort, that the *two* latter are easily perceived to arise from the hurtful powers that produce the former, and to depend upon their

(*a*) See above par. LXIX. LXXXVIII. CXLVIII. CLI. CCLI. Chap. IX.

(*b*) See par. CLI. throughout.

cause. As by that common band of union the diseases of this form are connected together; so

CCCXXIX. There are certain circumstances, by which they are distinguished by a *difference* of their degree: for, there are some *sthenic* diseases, accompanied with pyrexia (*c*) and the inflammation of some external part; there are others without the latter of these, and others without both.

CCCXXX. The general *sthenic* diseases, with pyrexia and inflammation, are some of them called phlegmasiæ, others exanthemata. But they will all, without distinction, be treated *here* according to their rank in excitement, from the highest to the lowest degree of excitement.

CCCXXXI. The phlegmasiæ and exanthematic diseases have the following symptoms in common to them. The first of these is that degree of *sthenic* diathesis, that distinguishes predisposition (*d*). This *diathesis upon the*

(*c*) See par. LXVIII. and the subjoined note, for the meaning of pyrexia, which will be just now repeated.

(*d*) From the first deviation from perfect health to the commencement of actual *sthenic* disease, the *sthenic* diathesis takes place in an increasing scale from 40° to 55°.

formation

formation of the disease, is succeeded by shivering, a sense of cold, languor, and *a certain feeling like that which we have in fatigue from labour, called by physicians lassitude*. The pulse at first, *in every case*, and in mild ones through their whole course, is moderately frequent, and, *at the same time*, strong and hard: The skin is dry, and there is a retention of other excretions (*e*): The urine is red; there is great heat and often thirst.

CCCXXXII. The symptoms peculiar to the phlegmasiæ (*f*), are an inflammation of an external part, or an affection nearly allied to it; while the general affection, for the most part, precedes this local one, and never suc-

(*e*) Such as that by the belly, and that which pours out the saliva and mucous, and forms the matter of expectoration.

(*f*) The phlegmasiæ are sthenic diseases, accompanied with inflammation in an external part, as has been said somewhere before, according to the definition of nosologists. But, as there is no difference betwixt them and synocha or the catarrh, which latter are unaccompanied with inflammation, we therefore pay no regard to the distinction; and shall regard nothing either in these or any other diseases, but what is constituted by a real difference of excitement. It is the excitement by which we are to be guided through our whole distribution of diseases.

ceeds to it (*g*). This general affection, for the greater convenience of distinguishing it from

(*g*) Long before any part of this doctrine was discovered, when I was in search of certain facts respecting peripneumony and pleuritis, I discovered one which I was not looking for, of more importance than all the rest put together. It had been asserted, by most systematics and all the nosologists, that the primary symptom in the phlegmasiæ was the inflammation of a part, I saw that was not true with respect to rheumatism, in which the general affection or pyrexia often rages one, two, or three days before the sign of inflammation, pain, is perceived in any of the joints. I could also discern, that from the moment the pain and inflammation appeared in erysipelas, or the rose, there was also the general affection equally conspicuous. In short, in no one of that set of diseases, did the fact appear that the inflammation was primary, and the pyrexia, or affection of the whole system dependent upon it. But as peripneumony was said in Edinburgh to be an exception, the detection I made equally disproved that in all the works of Morgagni, where peripneumony and erysipelas are treated, and in all those of Trillerus, a professed writer on that subject, and in a thesis in Sandiforth's Thesaurus, taken from no less than 400 cases of that disease (for they are now by others, as well as me, considered as one), I found that in somewhat more than one-half of the given number, which was very respectable, the general affection appeared from one to three days before the pain came on, and in all the rest of the cases that, though for any thing these authors said to the contrary, they might sometimes have come on together,

yet

from fevers, is to be denominated pyrexia (*b*). In the exanthematic sthenic diseases, an eruption of spots or pustles, more or less crowded, according to the degree of the diathesis, covers and diversifies the skin. *The eruption appears upon the occasion* of a foreign, contagious, matter having been taken into the body, and detained below the cuticle.

CCCXXXIII. The explanation of all those symptoms easily flows from the doctrine delivered above. The sthenic diathesis in the manner, that has been so fully explained (*i*) precedes. The characteristics of the pulse are never to be referred to the affection of a part, having been demonstrated to arise from the diathesis (*k*).

yet there was not one, in which it could be fairly alledged, that the pain was the first and primary appearance. Hence I found, that all the theories raised upon that hypothesis of course fell to the ground. Indeed the fact is quite consistent with every one here.

(*b*) Of this designation warning has been given more than once. See note at CCCXXIX.

(*i*) See above all the paragraphs, where the operation of the powers producing sthenic diathesis, are accounted for.

(*k*) See also par. CLV. and CLVI. and particularly CLXXIV.

CCCXXXIV.

CCCXXXIV. The frequency of the pulse in sthenic diseases is moderate, because, while the stimulus in the system cannot fail to produce some *frequency*, the quantity of *blood*, to be thrown into quick motion, sets bounds to it and prevents its rising to quickness. But, *at the same time*, it is evident, that a quantity *so great* cannot be transmitted with the same celerity, as an under proportion (l). The strength of the pulse is occasioned by the degree of excitement in the moving fibres of the vessels, which is commonly called their tone, and by that of their density considered as simple solids (m). The hardness of the sthenic

(l) In, fevers and other asthenic diseases of great debility, from the weakness of the stomach and other digestive organs, and the small quantity of nutrient matter taken in, the quantity of blood which is diminished in every one of those diseases, cannot be more than one-third less than that which overfills the vessels in sthenic diseases. Consequently, by a given power, it may be propelled in the same proportion, that is, one-third faster than in the sthenic diseases, which also appears in fact; for while 100 beats in a minute is a frequent pulse in sthenic diseases, till their approach or actual conversion to indirect debility, the common frequency in fevers and the other high asthenic diseases, is 150 beats in the same time.

(m) See above LIX. LX. and LXI.

pulse

pulse is nothing else, than the continuance for some time of each strong contraction, closely embracing a great column of blood, and, thereby, as it were, resembling a stretched rope (*n*).

CCCXXXV. That this is the exact state of the arteries is proved by the great quantity

(*n*) See par. CLV. If it should be alledged, that, though in fevers and the other cases mentioned just now in the note (*a*), the deficient quantity of blood to be put in motion will account for the greater celerity of motion, than in the diseases which make the present subject; still the great weakness of the heart, for want of the stimulus of a due quantity of blood, as well as of many others, should overbalance the effect arising from the small quantity to be moved. But the answer to that objection is easy. It arises from the explanation of the strength and hardness of the pulse just now mentioned in the text. The febrile pulse is indeed one-third quicker than the sthenic pyrexial, but it is weak, and small, and soft, while the other is strong, and full, and hard. An equal force then of the heart to that in the sthenic case is not required to account for the difference of the effect. A third less of blood, with an equal force behind, will be driven not only one-third faster, but with strength and hardness. The want of these two last then is to be set to the account of the heart's greater weakness. Though the blood then be driven one-third quicker, yet the impulse communicated upon the whole is one-third less, as the characteristics of both kinds of pulse readily explain to us.

of food taken with a good appetite, before the arrival of the disease, and during the period of predisposition; it is proved by the same and other powers, giving an unusually great excitement over the whole system (*o*), and, therefore, among *their* other effects encreasing the digestive energy; and it is proved by evacuant, with other debilitating remedies, both preventing and removing the diseases. The confounding, therefore, this state with one diametrically opposite (*p*), which has hitherto been an universal practice, was a very capital blunder, and could not miss of producing the worst consequences, by equally perverting the theories and actual practice of the art.

CCCXXXVI. The shivering and sense of cold depend for their cause upon the dryness of the skin. The languor and feeling of lassitude point out a higher degree of excitement

(*o*) See the whole of the first Chapter of Part II. upon the powers producing sthenic diathesis.

(*p*) Which authors and too many practitioners have universally done, in jumbling proper fevers with the present diseases, under the vague and false denomination of febrile or feverish diseases. In nosology the synochus is conjoined with typhus, the gangrenous fore-throat, which is a typhus fever, with the common sthenic inflammatory pyrexia.

in the brain and fibres of the muscles, than can be conveniently borne by the excitability, confined within certain boundaries (*q*). They are therefore functions impaired from a stimulant, not from a debilitating cause (*r*).

CCCXXXVII. The dryness of the skin is occasioned by the great excitement and density of the fibres that encircle the extreme vessels, diminishing their diameters to such a degree, that the imperceptible vapour of perspiration cannot be taken into them, or, if taken in, cannot be transmitted (*s*). This state is not spasm, is not constriction from cold, but a sthenic diathesis, somewhat greater on the surface, than in any other part. The stimulant energy of heat, especially after the application of cold, which is otherwise a powerful exciting cause of sthenic diseases, is applied to this part with more force than to any of the interior parts, and encreases the sum total of stimulant operation (*t*).

(*q*) See above CLIV.

(*r*) See above par. CLXVI.

(*s*) See LXIX. and CXIII.

(*t*) See XXXVII. *θ*. and CXIII. just now quoted.

CCCXXXVIII. The same, in general, is the cause of the temporary retention of the other excretions (*u*); only that the operation of heat, just now mentioned (*x*), is foreign from the present explanation; and on that account, the diathesis, that affects the interior vessels, is more gentle. These vessels, for that reason, and because they are naturally of a larger diameter, are sooner relaxed in these diseases, than the pores upon the skin (*y*).

CCCXXXIX. The redness of the urine is owing to the general diathesis affecting the vessels that secrete it, and proving an obstacle to the secretion (*z*). Hence arises the straining of the fluid to be secreted to distend the small vessels (*a*), and the counter-straining of the

(*u*) See CCCXXXI. and note (*d*); and also the par. CLIX. CLX. CLXIII.

(*x*) in the CCCXXXVII. and the reason is, that heat being stationary in the interior parts, has not that force which it has upon the external surface. See above par. CXIII.

(*y*) It is reasonable to think, that vessels, which pour out a watery fluid, have a larger diameter than those, which, like the perspiratory, even in their healthy state, only transmit an imperceptible vapour.

(*z*) See par. CLXIII.

(*a*) Or tubuli uriniferi.

moving fibres, by their contractions, to diminish the cavities which the distention increases; and, in so far as they perform the function of simple fibres, to resist the distention. But, as, in this forcible action of the vessels, the cohesive force of all the simple solids yields somewhat, *the effect comes to be* the transmission of some particles of blood. This transmission happens not at first, because the distention does not suddenly, but after some time, overpower the cohesion of the mass of simple solids.

CCCXL. The cause of the great heat is the interruption of the perspiration, preventing the heat generated in the inner parts of the system to pass off by the skin (*b*).

CCCXLI. The thirst is occasioned by the sthenic diathesis, closing up the excretory vessels of the throat, and *there* opposing the excretion of the *peculiar* fluid (*c*). And the heat, by dissipating what fluid is excreted, contributes to the effect.

(*b*) The rest is crased.

(*c*) See par. CLIX.

CCCXLII. The inflammation and affection nearly allied to it (*d*), whether of a catarrhal or of any other nature, is a part of the sthenic diathesis, greater in the affected, than any other equal, part of the system (*e*): Which is manifested by the exciting powers, also in this case acting upon the whole system, by the symptoms of the diseases showing an affection in common to the whole, and by the remedies driving that affection, *not from the inflamed part only*, but from the whole system (*f*).

CCCXLIII. The general affection, for the most part, precedes that confined to one part, or is synchronous with it, never comes after it, because its cause, the excessive excitement (*g*), producing the diathesis, exists before the disease itself (*h*); and, though it forms the rudiments of the affection of the part during the predisposition (*i*), yet it does not, *at that time*, form that affection itself, and not al-

(*d*) mentioned above in par. CCCXXXII.

(*e*) CLXVIII. CLXIX. CLXX. CLXXI.

(*f*) LXXXIX. See also part first, Chap. IV.

(*g*) See LXII. LXIX.

(*h*) See CLXXIV.

(*i*) See above CLXIX.

ways even during the disease, but only in a certain high degree both of the disease and of the particular affection itself (*k*). Hence, when the diathesis is great, the affection of the part is in proportion (*l*), and slight under a lesser degree of the diathesis (*m*); while in a moderate and gentle diathesis it does not happen at all (*n*), and for this reason, that a high degree of diathesis is necessary to the formation of it. Thus in peripneumony, where the diathesis is the greatest, and in rheumatism, where it is next *in greatness*, the inflammation is found proportionably great (*o*). And even in the measles, the danger of which turns entirely

(*k*) See above CLXVIII. η .

(*l*) as in peripneumony and rheumatism, inflammatory fore throat, and mild erysipelas, fore throat.

(*m*) as in the sthenic.

(*n*) As in synocha, or the common inflammatory fever and catarrh.

(*o*) This proposition does not go so far as to assert, that there may not be a sthenic disease, without any actual inflammation, but with an affection of a part nearly allied to it, which depends upon an equal high diathesis as either peripneumony or rheumatism, and even higher than the latter. Such we find, as I have formerly said (CLVII. and CLVIII.) in phrenitis. But the meaning is, that the inflammation, when it does happen, is always in proportion to the degree of diathesis.

upon the degree of sthenic diathesis, the danger of inflammation is equal, by which, and often in a high degree, the lungs themselves are affected. Synocha is never phrenitic, but when a great diathesis occurs, threatening the brain with inflammation, or the danger of it. Nor is there any danger to be apprehended in erysipelas (*p*), even when *its inflammation* affects the face, but when the pyrexia is violent. And the mildness of the diathesis ensures a good termination. Simple synocha is nothing else but a phlegmasia, consisting of a pyrexia and diathesis, inadequate, upon account of their small degree, to the production of inflammation. Yet, as all the hurtful powers producing it, and all its remedies are precisely the same, with those of any phlegmasia; the separating it from them, and uniting it with fevers, which are diseases of extreme debility, was an unpardonable blunder (*q*); and so much the more so, that inflammation, which was falsely supposed essential to the nature of the

phleg-

(*p*) or the rose, or St. Antony's fire.

(*q*) This has been more than once hinted at, and once a little above. The Nosologists have excluded synocha from their order of phlegmasiæ, because forsooth, though

it

phlegmasiæ, does take place in it, as often as the diathesis, necessary to produce it, is present (*r*). Yet this fact, upon account of another blunder, neither of a slighter nature, nor of less hurtful consequence, that of supposing inflammation the cause of the phlegmasiæ, could not be discerned. In fine, to remove all doubt of inflammation being compatible with the nature of catarrh, but commonly not taking place in it, upon account of the moderate general diathesis, upon which it usually depends; even in it, as often as the diathesis rises high, which sometimes happens, when the proper plan of cure for it has been neglected, and the effect of the exciting hurtful powers has been carried to excess, an inflammation, and a formidable one

it was in every other respect the same, it wanted the inflammation of a part, and they united it with proper fevers, though in the powers producing it, in its proper cause, and in the remedies that remove it, it was in every respect diametrically opposite to those diseases. But their rule of judging was different from ours.

(*r*) What is a peripneumony, a rheumatism, or any phlegmasia, but a synocha, with a diathesis sufficient to produce inflammation.

indeed,

indeed, arises, often affecting the throat (*s*), and sometimes the lungs, and producing *there* an affection rising to all the rage of a peripneumony.

CCCXLIV. It is in vain to talk of a thorn thrust under the nail, wounding it, superinducing inflammation upon the wound, and spreading a similar affection *along the arm* to the shoulder, and a pyrexia over the whole body, as an illustration and proof of the manner, in which the phlegmasiæ arise from inflammation. For nothing like a phlegmasia follows this, or any similar affection of a part, unless the *sthenic* diathesis previously happens to have taken place, and is now upon the eve of spontaneously breaking out into some one or other of its respective diseases. But, without that diathesis, no general affection takes place, and if an opposite diathesis be present *when such an accident happens*, an opposite general affection will be the consequence, to wit, a typhus fever, arising as a symptom of gangrene (*t*), and dangerous to life.

CCCXLV. That

(*s*) When that happens it is still commonly a mild disease, as will be shewn by and by.

(*t*) It is with much regret, that I should have had occasion to observe the bad, and too often fatal, consequence
of

CCCXLV. That the affection of the part depends upon the general affection is proved by the frequent occurrence of inflammation, without being followed by any phlegmasia. Which happens, as in the case just now mentioned, as often as the general diathesis is absent, or the inflamed part is not an internal one and of high sensibility (*u*). Accordingly, all the examples of phlegmone, all those of erythema or erysipelas, without general diathesis (*x*), are foreign from the phlegmasiæ, absurdly

of treating such local affections, without discrimination of the habit with which they may coincide. The disease is treated by evacuation and starving, even in habits the most weakened, and drink is withheld from persons even the most accustomed to it. The disease increases, and as if that, were for want of more such treatment, the same treatment is persevered in till death closes the scene.

(*u*) See above CLXXI.

(*x*) See also par. LXXXI. The Nosologists, under their genius of phlegmone which in one of them is divided into two species, proper phlegmone, and erythma, have raked together a number of local, and most of them insignificant affections, which they have considered as laying the foundation of their phlegmasiæ, or general sthenic diseases with an inflammation in a part. But will any man in his senses see any connection betwixt chill-blanes, which is one of them, or anthrax, which is a local symptom of the plague, or the slight inflammation upon the eye, called

absurdly conjoined with them, and more absurdly still considered as their prototypes; being *in fact* all only local affections, or symptoms of other diseases. This conclusion is not weakened by a certain resemblance of diseases with inflammation in an internal part to the phlegmasiæ; these diseases being neither preceded by the usual hurtful powers, that produce either the phlegmasiæ, or any general disease whatever, nor cured by the usual remedies of the latter. It was, therefore, a very bad mistake, and of most hurtful consequence to the practice of cure, to enumerate among the phlegmasiæ those diseases, that

called a flie, or the inflammation in the groins of children from their being scalded by their urine, or the bites of insects, the effects of which are confined to the bit part; will he see any connection betwixt these and a peripneumony; which arises from hurtful powers affecting the whole system, and no part in particular; and is cured by remedies that affect the whole system, and the inflamed part not more, nor even so much as many others? All these, however, have been made the prototypes of inflammation, by which they meant their phlegmasiæ; as if there were nothing to be regarded in them but the inflammation, which, in fact, is their most insignificant part, bearing no higher proportion to the sum of morbid state over the system than that of 6 to 3000, or even less. See above Part first, Chap. IV. and particularly par. L.

arise

arise from stimulants, acrids, and compression, and are only curable by removing their local cause, which is seldom effected by art (*y*).

CCCXLVI. It is not without good reason, that the appellation of *pyrexia* has been given to the general affection, which appears in the

(*y*) See above par. LXXXI. Take for an example gastritis, which the Nosologists have made one of their phlegmasiæ, and put upon the same footing with peripneumony and the other diseases that may be admitted as phlegmasiæ. That affection is an inflammation in a portion of the stomach, in consequence of a solution of continuity from the previous swallowing of ground glass, small fish bones, a quantity of Cayen pepper; or symptomatic of a schirrous obstruction and tumor. These, not the ordinary hurtful ones that operate upon the whole system, as in the true phlegmasiæ, are the powers that induce that affection. It has no connection with the excitement, the affection of which is only an effect of the locally stimulating power, and of the sensibility of the stomach; its true cause being the solution of continuity or obstruction, keeping up the inflammation; and its remedies such, as are adapted to the removal of that local state. It may happen to a sound habit, where there is no diathesis in any degree; in which case it is purely local; or it may accidentally coincide with either diathesis; in which case it is a combination. When the combination is with sthenic diathesis, debilitating evacuant remedies can only palliate, but they bring life into danger when the asthenic diathesis is present, which is 17 times out of 20 for the other.

phlegmasiæ and exanthemata ; they being by it most advantageously distinguished on the one hand from fevers, which are diseases of debility in extreme, and on the other from a similar, but altogether different, affection, which is a symptom of local diseases (*z*), and may be called a *symptomatic pyrexia*.

CCCXLVII. The true sthenic diseases (*a*) accompanied, except one, with pyrexia (*b*) and external inflammation (*c*), are peripneumony, phrenitis, the small pox, the measles, as often as these two last are violent, the severe erysipelas, rheumatism, the mild erysipelas, and the cynanche tonsillaris. Those free of inflammation are catarrh, simple synocha, the scarlet fever, the small pox, the measles ; when in the two latter cases, the eruption consists only in a few pustules.

(*z*) The general affection arising in the system from the effect of a thorn pushed under the nail (see par. CCCXLIV. and note), and that occurring in the gastritis, mentioned in the last paragraph of the text (see the note on that paragraph) are good examples of cases, to which the term symptomatic pyrexia should be applied.

(*a*) See above CCCXXIX.

(*b*) See par. CCCXXXII.

(*c*) See CLXVIII.

The Description of Peripneumony.

CCCXLVIII. The symptoms peculiar to peripneumony (*d*) (under which pleurisy, and, as far as it is a general disease, carditis, are comprehended), are pain somewhere in the *region of the chest*, often changing its seat; difficult breathing; cough, for the most part bringing up an expectoration, and sometimes a mixture of blood *in the matter of expectoration*.

CCCXLIX. The seat of the disease is the whole body, the whole nervous system (*e*); which is proved by the disease being produced by an increase of the diathesis, which took place in the predisposition, and by no new

(*d*) The symptoms in common to it and the other diseases of the same form, enumerated in the last paragraph, have been described in par. CCCXXXI. These peculiarly distinguishing the phlegmasiæ and exanthemata, that is the diseases either accompanied with inflammation, or an approach to it, are described in par. CCCXXXII.

(*e*) See par. XLVII. XLVIII. XLIX. LIV. LV. and not the inflamed portion in the lungs, according to the common opinion.

circumstance (*f*); by the inflammation within the chest, for the most part following the pyrexia at a considerable interval of time, and never preceding it (*g*), and by bleeding and other remedies of similar operation, which affect not the inflamed part, more than any other equally distant *from the center of activity*, removing the disease. The proper seat of the inflammation, which is only a part of the general diathesis, is the substance of the lungs, and a production of the pleura, covering their surface; or any part of that membrane, whether the part lining the ribs, or that containing, within the external surface of it, the thoracic viscera, different in different cases, and in the same case at different times.

CCCL. Pain, in some part of the chest, depends upon an inflammation of the corresponding internal parts just now mentioned (*b*), which is proved by dissection; only that it is oftener occasioned by an adhesion of the lungs to the pleura costalis, seldom to an

(*f*) See above LXXV. LXXVI.

(*g*) See above CCCXXXII. and the note (*b*).

(*b*) See above par. CLXXIV.

inflammation of that membrane, *as we learn from the same evidence.*

CCCLI. When the inflammation takes place on the surface of the lungs, it is impossible it can be confined either to the substance of the lungs, or the membrane covering their surface. For how can any person suppose, that the points of the same vessels, either as distributed upon the membrane, or as plunging into the substance of the lungs, or emerging from it, can alone be inflamed without *a communication of the affection* to the next points (*i*). The distinction, therefore,

(*i*) Yet one Nosologist, upon that very supposition, makes two orders of phlegmasiæ, one seated on the membrane, the other in the interior surface of each viscus. Into this error, he had been led, by observing, that, after death, the interior substance of the liver exhibited signs of previous inflammation. And, as other dissections showed the membrane upon other occasions to have been in a state of inflammation, he thence drew his rash conclusion. But it is to be observed, that the first mentioned state of the liver was not a phlegmasiæ at all, as it had not during life exhibited any of the symptoms of that disease, or even given any sign of the presence of inflammation. It is a case, then, we have nothing to do with upon this subject, even so far as it applies to the liver. But the extending the application to all the viscera, which

therefore, of the inflammation *accompanying the phlegmasiæ* into perenchymatose, or that affecting the substance of the viscus, and into membranous; as well as the notion which makes the latter case universal, is equally remote from the truth. The reason of neither the membrane contiguous to the lungs, nor the substance of the latter, being always inflamed, but of the inflammation being sometimes communicated to some part of the neighbouring membrane, is explained by the vicinity of the part inflamed *in the last case* to that which receives the air, and, therefore, varies in its temperature (*k*).

CCCLII. The

he was pleased to make the seats of some phlegmasiæ or other, was looseness of reasoning, and carelessness of matter of fact, in extreme. A gentleman, whose works have lately been buried, without any struggle or signs of life, but that of a feeble unintelligible sound from within the tomb, which no living reason could make any sense of in their life time, took it into his head to maintain (for the sake of seeming to differ with men of name and reputation, his highest ambition), that the inflammation in the phlegmasiæ was always seated in the membrane: The answer to which is given in the text.

(*k*) So far is it from being true, that this sort of inflammation can be confined to a few points of the affected vessels (see the note here at (*i*), that in fact we find it, though.

CCCLII. The pain often shifts its seat (*l*) in the course of the disease, because its immediate cause, the inflammation, is equally liable to change, being disposed to leave its first seat, or in part to remain in it, while in its greatest part it rushes into another. Which is a fact proved by the comparison of the known change of the pain with the traces of inflammation in the corresponding parts, discovered after death (*m*).

CCCLIII. This fact, added *to those already produced, brings* another solid argument (*n*) in refutation of the opinion of the disease being produced or kept up by inflammation, or in any shape depending upon it; confirms that here advanced, and proves that the inflammation is regulated by a strong general diathesis, and directed by it sometimes to one

though not so often as has been supposed, sometimes in the mediastinum, sometimes in the external membrane of the pericardium, sometimes in the superior membrane of the diaphragm. Boerhaave's notion of the translation of inflammation from one viscus to another, was an error in the opposite extreme.

(*l*) See above CCCXLVIII.

(*m*) Many such are to be found in Morgagni, Bonnetus, and Liutod.

(*n*) See all that has been said.

part, sometimes to another; that, *as depending on that cause*, it increaseth, and is in a manner multiplied. And the same conclusion is confirmed by the inflammation abating, becoming more simple, and *at last* receding from every part it had occupied, in proportion to the progress of the cure in relieving or removing the diathesis. The same fact is confirmed by the nature of rheumatism, the pains of which are severer and greater in number, in proportion as the diathesis runs higher; and milder and fewer in proportion to its gentleness. These pains, that have their dependence upon the general diathesis, *and are* a part of the general disease, ought to be distinguished from local ones, which often occur, and may accidentally precede this disease (*o*).

CCCLIV. The difficult breathing is owing to no fault in the lungs, as an organ, to no defect of excitement in them, but to the air alone in inspiration, by filling and distend-

(*o*) Stiches, as they are called, frequently happen from slight accidents, and may appear before the arrival of rheumatism, but they should be distinguished from the pains that arise from the diathesis, constituting that disease; a distinction, that has seldom been attended to, for want of a right principle to lead to such attention.

ing its own, compressing the inflamed, vessels.

CCCLV. The cause of the cough is a large secretion and excretion of the exhalable fluid, and mucus, irritating the air vessels, encreasing their excitement, as well as *that* of all the powers, that enlarge the cavity of the thorax; then suddenly suspending it, and thus performing a full inspiration, and a full expiration, partly in conjunction with the operation of the will (*p*).

CCCLVI. The cough is less or none at all at first; because, on account of a strong diathesis occupying the extremities of the vessels, the same fluids flow on in the form of an insensible vapour, are less irritating *in that form*, and dismissed with less effort.

CCCLVII. *Again*, the cough is afterwards followed by expectoration; because the accumulated fluids, with their effect, the effort of coughing, are carried forward in the rapid action of the air rushing out, as it were, in a torrent (*q*). And the mixture of blood with them point out the force of secretion formerly explained.

(*p*) See above CLX. and CLXI.

(*q*) See above par. CCXXXIX.

CCCLVIII. The softness of the pulse, commonly taken into the definition *of the disease* (*r*), has been here rejected, because the characteristics of the pulse do not follow the inflammation, but the general diathesis (*s*). With respect to the diathesis, *the proper language is, that* the pulse, instead of soft, is less hard; and when the effect, *that the cure has produced upon the pulse*, is considered, it may then be said to be soft (*t*).

CCCLIX. Nor is the varying feeling of pain, which *is described as* sometimes acute, and pungent, sometimes obtuse, gravitative, and rather to be considered as an uneasiness than pain, though immediately dependent upon the inflammation, to be considered as of any consequence in pointing out the state or seat of the inflammation: because, however great the inflammation is, wherever it is seated, whatever danger it denounces, the only means of removing it, and of averting the danger, is

(*r*) at least, when they called it peripneumony,

(*s*) See above CLV. CLXXIV.

(*t*) It is an universal effect of sthenic diathesis to render the pulse hard in one degree or another. And peripneumony is not an exception from that fact. But the distinction arose from the mistake of inflammation being the all, instead of an unimportant part of, the disease.

to remove the general diathesis. The notion, therefore, of the membrane being inflamed, when the pain is acute, and the interior substance, when it is obtuse, must be rejected as good for nothing, must be guarded against as destructive (*u*). For often, when the disease has arrived at an advanced stage, a sudden abatement of the pain taking place, without a proportional relief of the breathing, to an unskilful person gives an appearance of a return of health. But the cause of that, while it has nothing to do with the seat or sort of inflammation, is that degree of excitement, which shows, that the excitability is exhausted, the excitement come to an end, and that the vigour, before excessive, is now converted into direct or indirect debility (*x*). Hence arises in the vessels, especially the labouring vessels, in place of the excessive excitement, *with which they were before affected*, no excitement at all; and extreme laxity takes place of their

(*u*) See par. CCCLI. and the note under it at (*i*).

(*x*) The direct debility may be owing to the proper cure, which is directly debilitating, having been carried too far, or to the indirect debility arising in the course of the disease, seldom now to alexipharmac treatment. See above par. XLVII. and the subjoined notes.

former density. Hence, instead of an excretion encreased by violence, an immense discharge takes place without force, without effort, *and merely* by the watery *part of the* fluid, from the inert state of the vessels, leaving the more consistent; and a sudden suffocation takes place, in consequence of an effusion of fluids from all quarters into the air vessels.

CCCLX. The carditis, or inflammation of the heart, is a disease of rare occurrence, is ill understood, and for the most part a local affection. When the latter is the case, there is no use for the interference of a physician. And, if ever it be a general disease, it admits of no other definition or cure but those of peripneumony. From peripneumony then, as it arises from the same antecedent hurtful powers, and is removed by the same remedies, it is not to be separated.

The Description of Phrenitis.

CCCLXI. Phrenitis is one of the phlegmasiæ (*y*), with a slight inflammatory or ca-

(*y*) See above par. CCCXLVII.

tarrhal

tarrhal affection of some one, or more joints, or of the fauces, with head-ach, redness of the face and eyes, impatience of light and sound, watchfulness, and delirium.

CCCLXII. Inflammation, in its proper form, appears not in this case. And yet there is an approach to inflammatory state in the joints, in the muscles, and especially over the spine, or about the chest, or in the bottom of the throat; or *there is* a catarrhal state, which is an affection depending, *however*, upon the same cause, *as inflammation*, and only differing from it in being less.

CCCLXIII. The head-ach, and redness of the face and eyes, arise from an excessive quantity of blood in the vessels of the brain and its membranes, distending, stimulating in excess, exciting in excess, and contracting the vessels, to a degree that gives pain (z). To the production of which last inflammation is not necessary: independent of which, this excessive action is painful, because it exceeds that mediocrity in which agreeable sensation takes place (a). The redness both points out and

(z) See above CLVII. and CLVIII.

(a) See par. CLXXXII. CLXXXIII.

explains the overproportion of blood. And that the overproportion gives pain by its distending operation, is shewn by the relief that bleeding and every thing that diminishes the quantity, and moderates the impetus of the blood, administers.

X CCCLXIV. It is the overabundance also that produces the impatience of light and sound. For, as a certain impulse of the blood is necessary to the exercise of every sense, by whetting the organ of sensation (*b*); so, when the cause rises to excess, an equal encrease of the effect must be the consequence. But these *very* symptoms, with pain, arise in an opposite state of excitement, to wit, the asthenic.

CCCLXV. The vigilance and delirium are occasioned by the same excess of excitement, produced by the excessive stimulus of the abundance of blood and of the other powers. Other hurtful powers, contributing their effect, are intense thinking, and a high commotion of passion. Excited by those, no body,

(*b*) There is commonly in the organ where any nicety of sense is to be exercised an extraordinary apparatus of blood vessels. Blood flowing into these, encreases, by its heat and the stimulus of its motion, the sense, to which it is subservient.

even

excess of the eyes and ears will occasion impatience of light and sound, as will debility of the stomach occasion aversion to food. They are all symptoms of debility.

even in health, sleeps; and, therefore, the wonder is the less, that a high degree of them, and under the influence of a violent disease, should repel sleep. Both encreased watching and delirium are symptoms of disturbance.

An Explanation of the Sthenic Exanthemata.

CCCLXVI. The sthenic exanthemata, after the application of a contagious matter, and of the usual hurtful powers which produce sthenic diathesis, appear first in the form of a sthenic pyrexia, or synocha, and then, after a space of time, not certain to a nicety, are followed with small or larger spots.

CCCLXVII. That the exanthematic sthenic diseases differ not from other sthenic diseases *not exanthematic*, in any circumstance of consequence, is proved by this strong argument; that, except the eruption and the phœnomena peculiar to it, there is nothing in the symptoms, and except the contagion, there is nothing in the hurtful exciting powers, but what happens in any sthenic disease; and the preventatives, as well as the remedies, are the same *in all*. While that is the state of the fact, it was the height of absurdity, *merely*

3 for

for the sake of the eruption and its peculiar phænomena, to separate the exanthematic from their kindred diseases, and to unite them with the most opposite diseases both to them and to one another (c). For how, when the
usual

(c) The nosologists have separated the exanthematic diseases, real or imaginary, into a class or order by themselves, which they have filled up with diseases, of which there is not two, but the small-pox and measles, that have any other connection, than their mere eruptive appearance, while they are separated from others, with which, in every respect, they have the most essential connection. Thus the small-pox and measles are taken from the natural place to which they are here restored. And it is unaccountable, that we should have it to say, that even erysipelas, which has surely no right even to the slim distinction of eruptive, has also been placed among them. Again, the plague, which is to all intents and purposes a typhus fever, its eruptive part not always disjoining it from that, is separated from it, though it is so nearly the same, scarcely excepting degree, and conjoined with sthenic diseases of a diametrically opposite nature. And the gangrenous fore-throat, which is also a typhus, has neither been placed among fevers, in its proper place, nor among the exanthemata; to which the efflorescence, that it produces on the external surface, according to their own rules of arrangement, seemed better to entitle it than some others, especially the erysipelas. And it again (for there is no end of the confusion of this pretended order of some physicians), is conjoined not only as a genus with sthenic diseases, but even as a species

usual plan of cure removes the effect of the eruption, whatever that be, and thereby shows it to be the same, can any one imagine, that the cause should be different, and not precisely the same? unless we must again have to do with those, who maintain, that the same effect may flow from different causes. Truly, the operation of contagion, in so far as it affects general disease, is not of an opposite nature to the general sthenic operation, but precisely the same.

CCCLXVIII. Contagion is a certain matter, imperceptible, of an unknown nature, and like most of the phenomena of nature, only in any measure open to our enquiry in its evident effects. Taken from the body of one

species of one of those genera. The truth is, that systematics, who were otherwise no nosologists, have made too much work about eruptive and contagious diseases, and have never dived into the interior nature either of them or almost of any other. They have all followed each other from their first leader, and never once deigned to turn a glance of their eye upon the phenomena of nature as these arose before them. Hippocrates misled his followers, they misled theirs from age to age, and they all misled the poor nosologists. Who have laid on the cop-stone of the absurdity of the art, and, having finished the fabric of folly, left mankind, if they are not pleased with it, to look out at their leisure for a better and more solid.

affected

affected with it, or from any gross matter (such as clothes or furniture, where it happens to have been lurking), and received into a sound body, it ferments without any change of the solids or fluids, it fills all the vessels, and then is gradually ejected by the pores.

CCCLXIX. And, as no effect, except sthenic diathesis, follows it, and the hurtful powers, that otherwise usually produce that diathesis, always precede it, and an asthenic or debilitating plan of cure always, and only, succeeds *in removing it*, and consequently its effect no ways differs from the diseases hitherto mentioned; it is, therefore, with justice, that the diseases arising from it, are conjoined with those others, as belonging to the same form.

CCCLXX. Betwixt them there is only this difference, that in the exanthematic cases of sthenic disease, the matter requires some time to pass out of the body, *which time is* different in different cases; and it passes out more copiously or scantily, the more free or impeded the perspiration is (*d*). But it is impeded by no spasm, by no constriction from cold, and

(*d*) See above par. XXI. and LXXVI.

only by the prevalence of sthenic diathesis upon the surface of the body; as is evident from this fact, that cold, by its debilitating operation, procuring a free issue for the matter, clearly promotes the perspiration (*e*). And that it produces this effect, by diminishing the diathesis, not by removing a spasm, has been demonstrated formerly. As the issue of the matter is in this way promoted by *inducing* a free perspiration; so

CCCLXXI. Whatever part of it is detained below the cuticle, by that delay, it acquires a certain acrimony, produces little inflammations, and conducts them, when produced, to suppuration. These, by irritating the affected part, create a symptomatic pyrexia and symptomatic sthenic diathesis, which should be distinguished from the general *pyrexia and general sthenic diathesis* (*f*),

CCCLXXII. The period of eruption is more or less certain, because the operation of fermentation, being in some measure certain and uniform, to that extent requires a certain uniform *space of time*, for being finished, dif-

(*e*) See par. CXVII. CXVIII. CXX. CXXI.

(*f*) See above par. CLXXV. and CCCXLVI.

fused over the system, and reaching the surface of it, as is attested by the effect. Again, it is not exactly certain, because the perspiration, in the varying state of vigour, *that must occur*, must, *at different times, and* under different circumstances, be more vigorous or more languid.

CCCLXXIII. The pyrexia, symptomatic of the eruption, sometimes takes on the form of an actual fever: The reason of which is, that the high degree of stimulus, which the eruption throws upon the whole surface, produces ultimately excessive excitement, and therefore, *puts an end to it in the establishment of indirect debility (g).*

The Description of the violent Small-pox.

CCCLXXIV. The violent small-pox is a sthenic exanthema, on the third or fourth day of which, sometimes later, small spots or points, inflamed, and by and by to be transformed into exact pustules, break out; containing a liquor, *which*, generally on the eighth day after the eruption, often later, *is* changed

(g) See par. CCXV. CCXVI.

into

into pus, and dwindles away in the form of crusts. The eruption, the degree of which is always in proportion to that of the sthenic diathesis, in this case is the greatest that ever occurs.

CCCLXXV. All these phenomena are governed by the laws of fermentation, lately mentioned (*b*). The number of pustules, being proportioned to the degree of diathesis, shows, that, without the hurtful powers, that otherwise, *and without any co-operation of contagious matter*, produce that diathesis, the contagion has not much effect in producing the real morbid state, and that it chiefly regulates the exterior form of the disease (*i*).

CCCLXXVI. But a violent small-pox is distinguished by the following symptoms: Before the eruption there is a very severe pyrexia; this is succeeded by an universal crust of pustules over the whole body. Antecedent to which, the hurtful powers are very violent sthenic ones, and particularly heat; the remedies that remove it are very asthenic, and in preference *to any of them* cold.

(*b*) See above par. CCCLXVIII.

(*i*) Which, without diathesis, is of no consequence, and does not amount to general morbid state.

The Description of the violent Measles.

CCCLXXVII. The violent measles is a sthenic exanthematic disease (*k*), beginning with sneezing, watery eyes, dry cough, and hoarseness; on the fourth day of which, or later, there appears an eruption of small numerous papulæ, or little points; that on the third day, or later, terminate in an appearance of branny scales. This disease, when preceded with a high degree of sthenic diathesis, is proportionally violent.

CCCLXXVIII. The sneezing, watery eyes, dry cough, and hoarseness, are catarrhal symptoms, and, therefore, depend upon sthenic diathesis (*l*). And, since they appear, four days or more, before the eruption, that is, before the matter might seem to have reached the affected parts, and are constant and universal; hence are we to suppose, that the sthenic diathesis follows the hurtful powers, that usually produce it, and not entirely the peculiar matter in this case, and that it is indispen-

(*k*) See above par. CCCLXVI.

(*l*) See above par. CLXXV.

fably necessary to the measles. But though that *supposition* should be rejected, and it should be contended, that those symptoms arise from the *contagious* matter; it still must be granted, that this disease differs, however, in nothing from the other sthenic diseases, but equally depends upon sthenic diathesis, and yields to antisthenic or debilitating remedies. And it must be allowed, that, since the matter produces the same effect as the usual hurtful powers, its operation must be absolutely the same, *and* the cause of the disease the same. Consequently, we find nothing in the indication of cure, but what is in common to this disease with other sthenic exanthematic ones, which is, that time must be given to the matter to pass out of the body, and the perspiration be conducted in the same manner, as the sthenic diathesis is usually treated upon other occasions (*m*).

CCCLXXIX. The eruption admits of the same reasoning that has been delivered (*n*). The circumstance of its being a violent disease when preceded by a violent sthenic diathesis,

(*m*) See above par. XCVI.

(*n*) See above par. CCCLXXV.

and mild in a mild degree of that diathesis, is a further instance of the little difference that there is betwixt the operation of contagion, and that of the ordinary powers producing sthenic diathesis.

CCCLXXX. When the diathesis runs so high as to suppress the perspiration, the eruption often disappears for a time, as if it went into the interior parts of the body: Which is a danger, that is chiefly threatened at the end of the disease; and shows, that this matter, in the same manner as the variolous, kindles up a symptomatic inflammation over the surface of the body, and then, by a further increase of the diathesis, suppresses the perspiration. Hence, with other viscera, the lungs (*o*) are often inflamed (*p*).

CCCLXXXI.

(*p*) What follows of this paragraph is erased.

(*o*) That the lungs should be inflamed in a violent state of the diathesis in the measles is not to be wondered at; as the common catarrh, when its diathesis runs high, is liable to produce the same effect. (See par. CCCXLIII. towards the end.) But, considering how many facts in medical writings I have found false, the effect of that on my mind, is to render the weight of testimony in favour of the various internal viscera being so liable to be inflamed, from this supposed striking in of the measles eruption, very light,

CCCLXXXI. The violent state of the small-pox, often from the great stimulus of the eruption, converts both the sthenic diathesis and eruption into the asthenic ones, and thereby produces the confluent small-pox, of which we are afterwards to treat. Whether any thing like that is the consequence of the measles, is not yet ascertained: But, as every excess

light, and to dispose me to doubt of the fact altogether: Which I am the more inclined to do, from the analogy of a broad fact in direct contradiction to it: Which is, that the inflammation, depending upon the general diathesis in sthenic diseases, never, as I have yet found, affects an interior part. (See par. CXIII. CLXVIII.) Neither is inflammation, from any other source, near so frequent in internal parts as vulgar opinion has taught us. Dissection has shown inflammation in the intestinal canal in dysentery, or what is called in English the bloody flux. But that only happened under the evacuant, debilitating, vegetable, plan of cure; and, even in that case, seems to have been an ultimate, not an early, effect, much less a cause. And it has been shown, that what has been considered as a burning inflammation in the first passages, is not an inflammation at all. (See above par. CXCVIII.) Nay, even when inflammation does happen internally, it is never of the sthenic, but always of the general, or local, asthenic kind, and, when quickly cured, cannot be inflammation. If there be any truth in the frequency of inflammation towards the end of the measles, it must be of the

excess of excitement, as in the conversion of peripneumony into a dropy of the chest, is liable to run into indirect debility, it is, therefore, scarce to be doubted, but that the same thing happens to this disease, which is inferior to none in violence.

The Description of the violent Erysipelas.

CCCLXXXII. The violent Erysipelas is a phlegmasia, always beginning with pyrexia, and followed by inflammation. The inflammation is seated in some external part of the

asthenic kind: Which is the more likely from its late appearance, and from a circumstance that, though no where taken notice of, has great weight with me; which is, that, as the distinct small pox passes into the confluent, peripneumony into dropy of the the chest, and any sthenic disease with its diathesis, into any asthenic disease, and the diathesis on which it depends; there is nothing in the nature of the animal œconomy and of the powers acting on it, to prevent the same conversion of sthenic into asthenic state in the measles. And if, which is most probable from the alexipharmac practice, that was then used in this disease, indirect debility can induce such a change, no disease has a fuller chance for it than the measles. But I am sure, were the debilitating plan used from the beginning, no such consequence would happen.

*This note contains in it a strong body,
proof of the non-existence of a state
intermediate, and that the disease*

body, oftenest in the face, sometimes in the throat, with redness, of an unequal edge, somewhat raised, creeping from one place to another, and attended with a sense of burning.

CCCLXXXIII. It is peculiar to this inflammation, and foreign from the other general ones, to invade the corpus mucosum. To assign a reason for which is of no consequence; since this inflammation does not differ from the others either in the operation of the exciting powers producing it, or in that of the remedies which remove it.

CCCLXXXIV. The cause of the redness of the inflammation, in this as well as in every case, is an excessive quantity of blood in the inflamed vessels; for the question about the degree of redness is of no importance. There is less swelling in the inflamed part, *than in other sthenic inflammations*, because there is *here* a free space betwixt the scarf-skin and true skin, allowing the effused humour room to spread and diffuse itself. The same is the cause of the slow motion of the inflammation, and of the inequality of its edges. The sense of burning is owing to an acrimony *of the contained fluid*, acquired by stagnation.

CCCLXXXV. The attack of the inflammation upon the face is not more dangerous than upon any other place, except when the diathesis, upon which it depends, is great, rendering the inflammation proportionally great (*q*). In which latter case, whatever part is inflamed, the disease must be held for a severe one; but still severer, if the inflammation seizes the face; in which case a great tumult of affection internally accompanies the disease.

CCCLXXXVI. When such a sthenic diathesis, and affection of the head depending on it, happens, no disease is more dangerous, none more rapid in its race to death; while in a mild diathesis no disease is milder.

A Description of Rheumatism.

CCCLXXXVII. Rheumatism is a phlegmasia, especially in that temperament, which inclines to the sanguine. It is a consequence of heat succeeding to cold, or so alternating with it as to prove the more stimulant: It is accompanied with pain nigh, or between, the

(*q*) See par. LXXXV. CCCXLIII.

joints, chiefly the greater ones, and proportioned to the degree of the diathesis (*r*): And the inflammation always comes after the pyrexia.

CCCLXXXVIII. External temperature is hurtful in this disease in the same way, as that been often now explained (*s*).

CCCLXXXIX. The rage of the pain is in the parts that have been mentioned (*t*), because it is in these parts that the inflammation, or more encreased part of the general diathesis (*u*), chiefly acts. Which *again* happens, for this reason, that the nearly most powerful of the exciting hurtful causes, the temperature, that has been mentioned (*x*), is only directed thither. There is no translation of the inflammation to the internal parts, for this reason, that these parts, which preserve nearly an equal temperature amidst every change of it externally, are not acted upon by the same hurtful power *which annoys the external parts*.

CCCXC. Cold, according to the common opinion, is not hurtful in this disease; because

(*r*) CCCXLIII.

(*s*) CXIII. et passim.

(*t*) CLXVIII.

(*u*) Ibid.

(*x*) CXIII.

the rage of the disease is greatest under the operation of heat, which has an effect quite opposite to that of constriction (*y*). This fact is confirmed by stimulant diet, *in all its articles*, proving always hurtful, and by abstinence being always serviceable, and often alone making out the cure. And it brings a *sufficient* refutation of that mistaken notion, according to which, temperature is alledged to be more hurtful, and sweating more serviceable, than is consistent with the truth; as if there were no other hurtful powers but the former, no other remedies but the latter. In this, as well as in all other general sthenic diseases, it is the general sthenic diathesis alone that produces, and the solution of it alone, that removes the disease. Which is a clear fact, and supported by the evidence of every part of this doctrine that has yet been delivered. The pains of parts, which sometimes precede this disease, oftener happen without being followed by it, and that, in both cases, have nothing to do with sthenic diathesis, upon which this disease entirely hinges, are a local affection, or belong to a very different general

(*y*) Ibid,

disease,

disease, rheumatalgia, of which more afterwards (z).

CCCXCI. The reason of the greater joints being affected in this disease, and the lesser ones in the gout, is the following: In rheumatism, because both the rest of the disease and the pains depend upon a violent sthenic diathesis; therefore it is, that the greater joints, which, for the reasons assigned, undergo more of the diathesis, have also a greater share of the disease. But, as the gout consists in debility, its influence will be greatest, where there is *naturally* the greatest debility, and therefore in the extreme parts, and those most remote from the centre of activity (a).

(z) CCCLIII.

(a) To make this subject simple to any apprehension. A person has been exposed to intense cold a whole day. He comes home at night, is set by a warm fire, receives hot meat and warm cordial drink. He is next covered up in his bed with an addition of clothes, receives more warm strong drink. He falls asleep, and next morning feels a pain in some part or other of his upper extremities, nigh, or between, the great joints; and, previous to that, a high state of heat and bouncing pulse, with a certain feeling of uneasiness in different parts of his trunk. The pains encrease in the bed next night in proportion to the encrease of the general affection; and cold, evacuation, and abstinence from food, from alternation of temperature, cure him.

A Description of the mild Erysipelas.

CCCXCII. Both the definition and explanation of the violent erypelas (*b*), delivered before, suffice for those of the mild; but, in such sort, that the latter, both in its antecedent hurtful powers and symptoms, and in the whole nature of its cause, must be understood to be much milder than the former, and not only so, but a remarkably mild disease.

CCCXCIII. It is often not so much a sequel of the sthenic cynanche, which is commonly called tonsillar, or the common inflammatory fore-throat, as a supervention upon it before it has finished its course. It often appears alone and unaccompanied with the cynanche, arising from a similar lenity of the hurtful powers, and manifesting a similar mildness of symptoms through its whole course.

CCCXCIV. Nay, in the same persons, in the same state of the hurtful powers, sometimes this erysipelas, sometimes cynanche, sometimes catarrh, promiscuously arise, and

(*b*) From CCCLXXXII. to CCCLXXXVII.

are *all* removed by the same gentleness in the method of cure (c).

A Description of the Cynanche Sthenica.

CCCXCV. The sthenic cynanche is a phlegmasia, with an inflammation taking place in the throat, and especially the tonsils, never preceding the pyrexia: It is accompanied with swelling and redness, and an aggravation of pain in swallowing, especially any thing fluid.

CCCXCVI. The reason for the inflammation occupying the place mentioned here, has been given before (d). And, when it has once taken place, it is afterwards liable to frequent recurrence, because its seat being in the

(c) I have often experienced them all, sometimes singly, sometimes all three, in the course of the same disease, oftener a combination of inflammatory fore-throat, and the mild erysipelas, and, as far as I could observe, could discern, that the degree of phlogistic state that produced them, and of remedies that removed them, were both gentle, the former as stimulants, and the latter as debilitating powers; and both so nearly of the same degree, that, in arranging them, I was at a loss which to place over the other in the scale.

(d) See CXIII. CCCXLII.

way of the most hurtful power (*e*), and less covered than other parts (*f*), is exposed: And the vessels *first* distended by the inflammation, and then afterwards relaxed, take in an over-proportion of blood upon every encrease of its impetus (*g*).

CCCXCVII. As the inflammation, like *that of* the other phlegmasiæ, never precedes the pyrexia (*b*), for the reason assigned (*i*); so, if an unskilful person should think it did, the reason of that is the gradual degeneracy of the general sthenic inflammation into a local disease, from its frequent recurrence, and always leaving a taint behind it in the affected part. This latter *inflammation* may happen,

(*e*) Heat and alternation of temperature. See XXXVI. with addition.

(*f*) See par. CLXVIII. If one is walking in the evening, when a sudden fog comes on, with cold and chilliness, he may cover his throat externally, but it is impossible to defend it internally.

(*g*) This is so liable to happen, when any person has once experienced this disease, that the encreased motion of the blood in walking in a warm day, and then sitting down in a cool place, has sometimes produced ophthalmia, sometimes this fore-throat.

(*b*) See the definitions of them all, &c.

(*i*) See par. CLXVIII. CCCXLIII.

without

without a general sthenic diathesis, and, therefore, without being followed by a sthenic cynanche; and it may accidentally coincide with the former, or *sthenic diathesis*, and, therefore, precede the latter, or sthenic cynanche: But, in both cases, it ought to be distinguished from *the pure general case*, for the sake of guarding against the commission of a hurtful mistake in the cure (*k*). In an asthenic habit, whether succeeding to the former or not, there is again another general inflammation, to be referred to asthenic diseases.

CCCXCVIII. If any person can explain why the pain is aggravated in swallowing, he may *communicate* his knowledge; if he cannot, it is no matter.

CCCXCIX. The cynanche oesophagaea has been here omitted, because it is a rare affection, and admits of the same reasoning and cure as the tonsillar, from which it differs, not but in the inflammation being farther down, and in some redness only coming within view. But, as there is a suspicion that it may be

(*k*) This might happen to a person under an asthenic diathesis, which would be increased by the debilitating plan of cure, and would be useless in the absence of diathesis.

local, as when the œsophagus happens to be eroded or burnt, by a stimulus, or some acrid matter; the distinctions, therefore, should be attended to (*l*), and made use of for the sake of practice.

CCCC. There is likewise a rare disease, sometimes happening in certain countries, never in others, called the croup (*m*). In it the respiration is laborious, the inspiration sonorous, with hoarseness, a ringing cough, and a swelling scarce to be discerned (*n*). It is a disease that infests very young children almost only. And in all other particulars it is of a doubtful nature (*o*).

CCCCI. Concerning which, when it happens to occur in practice, use the following *marks of judgment*. As the sthenic diathesis,

(*l*) See above LXXXI. LXXXIII. CLXX.

(*m*) by nosologists cynanche stridula.

(*n*) It is perceived upon dissection of the dead subject.

(*o*) I never saw this disease, but when I was so young a student, that any observations I could make, can be of no use to me now. There have been many battles of words about, whether it be inflammatory or spasmodic, without any adequate meaning of the differences betwixt these two words, at least so far as to influence the practice; which remained much the same betwixt the parties, and probably the right one missed by both.

in the degree requisite to *the formation of* actual disease, which depends upon a high degree of diathesis, happens less, either in the beginning, or towards the end of life; because the high degree of excitability in the former, and the low degree of it in the latter, admit a smaller degree of the effect of the the exciting power, *that is*, a smaller force of excitement (*p*), than the long period of human age betwixt these two extremes; yet it is not altogether foreign from either (*q*). In childhood, the high degree of excitability compensates for the slightness of the stimulus; while, in old age, the high degree and force of the latter may compensate for the deficiency of the former, and suffice to induce some sthenic diathesis, even to that degree which constitutes disease. In this way infants undergo wonderful vicissitudes of excitement, and within the shortest spaces of time. This day they will show every sign of extreme debility, next day every one of *restored* vigour; because the operation of *any* stimulus given them soon rises to its highest, upon account of their high

(*p*) See par. XXV. and XXVI.

(*q*) Though it is seldom that either a child, or very old man, will be so sthenic as to need bleeding and much evacuation, yet they will sometimes:

degree of excitability, and sinks as soon to its lowest, upon account of its own small degree (*r*). Hence every sthenic diathesis, that happens to them, is short, acute, and soon removed (*s*); nor is their asthenic state of long continuance, or difficult to be removed; provided there is no local affection (*t*), and a proper method of cure is employed (*u*).

CCCCII. The marks of sthenic diathesis at this age are, great frequency of pulse, when compared with that of adults, more frequent than their own in health, distinctly meeting the finger upon feeling it; a boundishness of belly at first, which becomes more free in the progress of the disease; dryness of the skin; burning heat, thirst, watching, strong crying.

CCCCIII. The signs of the asthenic diathesis at the same age are, a pulse not to be

(*r*) A child of mine was given over for death by his nurse: His mother gave him some of the diffusible stimulus. He slept two hours, and when he waked made signs, for he could not yet speak, to have a little pie, most of which he ate.

(*s*) A single gentle purge will do it.

(*t*) which very seldom, indeed, happens,

(*u*) Which, till of late, has been very rare: The antiphlogistic cure has made away with three-fourths of mankind, before they arrived at the seventh year of their age.

reckoned

reckoned from its frequency, small, falling softly like snow upon the finger of him who reckons it, so that he is uncertain if he touch it at all; a very loose scouring belly, with green matter; frequent vomiting; dryness of the skin, heat greater than natural, and greater in some parts than others; interrupted sleep, never refreshing; a feeble voice in crying, fit to excite compassion.

CCCCIV. The former *diathesis*, besides other hurtful powers, is preceded by the use of sound milk, animal food, an abuse of opium or strong drink; excessive heat after cold and moisture, which latter encreases the debilitating effect of the former; a strong set of simple solids.

CCCCV. The latter, together with the known hurtful powers, is preceded by the use of milk from a weak, sickly nurse; that of vegetable food, with sugar in it; watery diet; watery drink; habitual vomiting, habitual purging, both by other means used for the latter, and particularly by magnesia, given with the intention of absorbing an acid; cold not followed by heat; a weak mass of simple solids.

CCCCVI. Consider which of these sets of signs precede or accompany the croup, and whether its pyrexia be sthenic or asthenic. Weigh the different sentiments of authors upon the subject. Suspect their theories, but their facts *still* more. Be on guard not to be misled by the vanity, emptiness, and rashness of young physicians; as well as by the obstinacy and bigotry of the older sort, that encreases with their age and practice, to be bent by no force of reasoning, no weight of truth, scarce by the power of God: Regard their minds as bound in the fetters of prejudice: Remember, that a whole age of physicians were in the wrong, except one man (*), and

(*) The improvement that Dr. Sydenham made was good for the length it went, which was, to use cool and gentle evacuants for the cure of the small-pox, peripneumony, and one or two more of the sthenic diseases. The bias, in favour of the alexipharmac practice, for the cure of catarrh and measles, he never got over. His theories were vague, but with respect to the practice in the diseases among which his reformation lay, they were innocent. He attained not any idea of the nature of diseases depending on debility: And his practice was hurtful in them: He fell a victim to his gout, which could not have happened had he been acquainted with but one disease of the debility. His practice, even when right, was destitute of principle:

and persisted obstinately in their error, in the case of the Alexipharmac physicians: And, reflect within yourself, *good reader!* whether the present physicians, who follow the doctrines delivered in the schools, judge better *than their predecessors*, and do not run into the contrary extreme of madness, doing as much mischief in fevers, and diseases of pure debility, as they did in sthenic diseases, and in fact take a wide range of spreading destruction among mankind. Thus secured against mistake, consider the cures of this disease that have appeared. If in those, or in any trial that you may make, you shall find that either bleeding and purging, or antispasmodics, as

principle: He had no sort of comprehension of the doctrine of life as a whole, and as a department of knowledge distinct from all others. It would have been lucky, however, for posterity, had his successors done as much in asthenic, as he did in sthenic diseases. From that beginning, the ingenuity of some, at last under a right direction, might have brought out more information, and, by gradual and sure steps, at last attained a comprehension of their whole subject. But professors of universities ruin every thing: For while they find out nothing themselves, they throw into false lights the useful hints of others. This was the effect first of the Boerhaavian, then of the Hoffmannian and Stahlian doctrines. See our Observations, Outlines, p. lxxxv. to cxlix.

they are called, that is, stimulants succeed; then be assured, that, in the former case, the disease is sthenic, in the latter asthenic; *of which you will be still* more certain, if you shall find that the exciting hurtful powers and symptoms, which have been enumerated, at the same time agree *with the other marks of judgment.*

A Description of Catarrh.

CCCCVII. Catarrh is a phlegmasia, in which, to the general symptoms mentioned before (y), are added cough; hoarseness; and first a suppression, or slight encrease of the excretion from the nose, fauces, and bronchia, followed afterwards by a further encrease; arising from stimulant powers, often heat alone, but chiefly after a previous application of cold; and to be removed by debilitating powers, often by cold alone, guarding against heat (z).

CCCCVIII. The explanation of the cough is the same as that given before. But it is freer, *than in peripneumony*, and not avoided,

(y) CCCXXXI.

(z) See par. CXII. CXIV. CXVII. CXXII. and all the stimulant powers, from CXII. to CXLVII.

because

because there is no inflammation in the neighbourhood to aggravate it, and raise pain (*a*).

CCCCIX. That the hoarseness is owing to a suppression of the vapour that should be exhaled into the bronchia, may be known from this; that, when the hoarseness has remained long, almost without expectoration and cough, or with a moderate degree of them, while the sthenic diathesis continued in full force, and did not abate in the bronchia; upon the diathesis giving way, and the expectoration and cough becoming more free, the hoarseness abates, or goes off. That this can be effected by a stimulus of that kind and degree, that constitutes sthenic diathesis, is shown by *the effect of* strained speaking producing temporary hoarseness, by silence removing the hoarseness, and cold drink relieving it.

CCCCX. The suppression of excretion is that of the mucus and exhalable fluid, related before (*b*), and it admits of the same explanation that was formerly given.

CCCCXI. That stimulants produce catarrh is evident from this, that heat alone, fulness in food, strong drink, and moderate exercise,

(*a*) See par. CLX. CCCLV.

(*b*) See par. CCCCVIII.

for certain produce it; cold, cold drink, spare diet, and rest, as certainly and effectually remove it. It was, therefore, a very unlucky mistake, to think it arose from cold alone, and was to be cured by heat. On the contrary, cold is never hurtful in it, but when its action is succeeded by that of heat, to be explained as before (c). The occurrence of catarrh so often in summer, where its action can be a thousand times traced back to heat, but not to cold; the influenza never needing the assistance of cold, which catarrh often does, in the manner just now said; its never succeeding to *pure* cold, but immediately to heat, facts known to old women, to shoe-makers and taylor, to fore-eyed persons and barbers, unknown to medical authors and professors, *all* confirm the same fact.

A Description of the simple Synocha.

CCCCXII. The definition of simple synocha is the same with that of phrenitis (d), excepting the symptoms affecting the head. It

(c) See CXXII.

(d) See par. CCCLXI.

is a slight disease, ending in health often in one, always in a few days, unless when new hurtful powers, either accidentally or from the use of a stimulant plan of cure, have been superadded.

A Description of the Scarlet Pyrexia.

CCCCXIII. The scarlet pyrexia is an exanthema (*e*); about the fourth day of which, or later, the face swells somewhat, and at the same time the skin is here and there affected with a red efflorescence, and then checquered with large spots; which are afterwards to unite, and in three days to end in little scales, as if branny ones. This eruption does not arise, but in consequence of sthenic diathesis produced from another source. And there is another similar to this, which accompanies an opposite disease, afterwards to be mentioned.

CCCCXIV. The eruption, appearing at a certain time, and remaining for some time, must be imputed to the fermentation, requiring a certain time, different in different diseases,

(*e*) See CCCXXX.

and

and is to be explained in a similar manner as before (*f*).

CCCCXV. The swelling of the face depends upon a greater degree of sthenic diathesis there, than any other equal part. And we are to imagine, that, besides the hurtful powers that usually produce it, it is increased by the contagious matter, now approaching the surface.

CCCCXVI. This matter of itself produces no morbid state, only giving the exterior and exanthematic form (*g*), and following the nature of the sthenic or asthenic diathesis. Hence, after its application, the disease that arises is sometimes sthenic, as this is, of which we have given a definition, sometimes asthenic, as that disease which we are afterwards to mention in its proper place. This view of it serves to reconcile the jarring and contradictory explanations, and methods of cure of authors, who have gone into such controversies to settle its nature.

(*f*) See par. CCCLXVII. and CCCLXXVIII.

(*g*) See par. CCCLXXV.

A Description of the mild Small-pox.

CCCCXVII. The definition of the mild and violent small-pox is the same; excepting that there are often very few pustules, never exceeding one or two hundred in number: Sometimes the place only, which was inoculated, is beset with pustules, without any other in the rest of the body; and besides, these there may be only one.

CCCCXVIII. The number of pustules and crowded eruption is occasioned not by the nature of the contagious matter, nor by its quantity, but by the sthenic diathesis, in so far as it is induced by the sthenic hurtful powers, in which the matter has very little participation (*b*). If, therefore, that diathesis be prevented, and especially upon the surface, the eruption will never be crowded; and, after it has appeared, if it be immediately removed, the eruption will never be dangerous.

CCCCXIX. As the contagious matter does not contribute much towards sthenic diathesis,

(*b*) See par. CCCLXX. CCCLXXII. CCCLXXV.

for the reasons alledged (*i*) ; so, that it does contribute something, is proved by a crowded eruption both appearing and encreasing, when the diathesis, after the reception of the contagion, was not encreased by the ordinary hurtful powers (*k*).

CCCCXX. And, therefore, while the excitement should be reduced below that degree which suits perfect health ; there are, however, certain boundaries, beyond which we should not proceed in the debilitating process.

CCCCXXI. For, when the sthenic diathesis is very much reduced, and the excitement immoderately diminished, there appears over the whole body, an eruption quite unlike the variolous, of a high scarlet colour, and in its progress proceeding constantly from a spotted appearance into a continued sheet of

(*i*) From CCCCXVII. to CCCCXIX.

(*k*) This indeed, is a clear proof, that the matter contributes something, and that there may be a degree of diathesis, compatible with health, unless when it is encreased, and the perspiration diminished, by such contagious matter.

efflorescence (*l*); which, unless treated upon a stimulant plan, would prove fatal.

A Description of the Mild Measles.

CCCCXXII. The definition of the mild measles is the same with that of the violent. To which all the reasoning that has been employed about the small pox will apply. If, immediately upon the arrival of the catarrhal symptoms, the asthenic diathesis contrary to every mode of curing this disease hitherto thought of, be removed; often no disease of that kind which affects the whole body, follows. And the disease always proceeds with the same gentleness as the small pox treated in the same way (*m*).

CCCCXXIII. The catarrhal symptoms are of the same nature as in the catarrh, and admit of the same cure, that is, the asthenic (*m*).

(*l*) from the top of the head to the ancles. See above par. CCXX. and two notes.

(*m*) All this has been well proved by every one of my children, and by an 100 patients at once.

CCCCXXIV. Ca-

CCCCXXIV. Catarrh, and simple synocha, are free from all inflammation, whether general or local. The scarlet fever, and the mild small pox and measles, are free from the general, and exhibit upon the surface a local, inflammation of no consequence (*n*).

A Description of the Sthenic Apyrexia.

CCCCXXV. The sthenic apyrexia, which are equally free of pyrexia (*o*) and every degree of inflammation, arise from a sthenic diathesis, that has less effect upon the vascular system, *than the other sthenic diseases* (*p*).

A Description of Mania.

CCCCXXVI. Mania is a sthenic apyrexia; in which the mind is disordered, and forms false ideas of every thing.

(*n*) See par. CLXX. and CCXI.

(*o*) See par. CCCXXIX.

(*p*) So much so, as never to have been thought in any sort connected with that affection we call pyrexia.

CCCCXXVII. In

CCCCXXVII. In so far as mania does not arise from a fault of the substance of the brain, which is a local case that sometimes happens; the powers that have the chief share in producing it, are excessive exercise of the mental function, and a high exuberance of passion. These, however, while they act more upon the brain *than any other part*, at the same time do act more or less also upon the whole body, though not to the degree of drawing pyrexia after them (q). Which is proved by the disease being cured by a debilitating plan, and by other stimuli, as well as those just now mentioned, not immediately applied to the brain, but to a distant part of the system from it.

CCCCXXVIII. The most powerful of those stimuli are, spirituous or vinous drink, and opium, and, perhaps, some other things, taken into the stomach, and first acting there. Of the other asthenic hurtful powers, some *of themselves, and operating alone*, have less

(q) Compare this with par. XLIX. L. LI. LII. LIII. and indeed with that whole chapter, as the severest trial of the truth of it; nothing being more natural, than the supposition that a mad man is only affected in his head, but we shall find that not true.

effect in inducing mania, and yet, *even they*, by their stimulant operation, encrease the force of those, that have that hurtful effect; as is proved by the effect of removing them in relieving the disease.

CCCCXXIX. If poisons sometimes produce mania, without hurting the substance of any solid part, their operation must be supposed the same, as that of the general stimulants, their effect the same, and the disease a general one, and the same (*r*). But if these very poisons act by destroying the texture of a part, they must be considered as the origin of a local disease (*s*).

CCCCXXX. The heart and arteries are less affected in mania, *than in any of the pyrexial diseases*; because, the hurtful power, which chiefly affects the vessels, too much food, has less concern in the number of the hurtful powers *here*. And yet that the food, superadded to the other hurtful powers, does prove hurtful *even in this disease*, is evident from a *contrary power*, abstinence, being, among other remedies, found of very great efficacy in restoring the healthy state. Which,

(*s*) See par. XX.

(*t*) See par. V. VI, XX.

with what has been said above, proves that mania is not a disease confined to a part, but extended to the whole system.

CCCCXXXI. Although, in the diseases that have just now been mentioned (*t*), the pulse is commonly said, and believed, to be not at all affected, that, however is not exactly the truth; for in mania, so long as it continues to be a sthenic disease (*u*), more or less of sthenic state can be perceived (*x*).

The Description of Morbid Watchfulness.

CCCCXXXII. Pervigilium, or morbid watchfulness, is a sthenic apyrexia (*y*); in which there is no sleep, or no sound sleep, and the mind, in a startled state, is agitated with vivid, strong, or uneasy impressions (*z*).

CCCCXXXIII. The hurtful powers, that produce pervigilium, are the same with those,

(*t*) from CCCCXXV. to CCCCXXXII.

(*u*) that is, so long as it is really mania,

(*x*) The characteristic of hardness of the pulse is never wanting, and therefore also fulness. (See CCCCXXXIV.)

(*y*) See par. CCCCXXV.

(*z*) Read after 'est' & mens excito animo, vivis, validis, aut molestis imaginibus, agitur.

that produce mania, but inferior in force. It is evidently produced by hard thinking, commotion, or disturbance of mind, in preference to other hurtful powers. The degree of thought, that has that effect, is not ultimately excessive; for, if it were, by effecting a temporary waste of the excitability, it would produce sound sleep; or if it repelled sleep, it could only act so, by means of indirect debility, the consideration of which is foreign from this place (a). And the same is the degree of disturbance of feeling, that proves hurtful, in so far as it produces this disease: Every ultimate excess of which (b), either ends in sleep, or induces that vigilance, of which indirect debility is the cause. But it is not a single operation of the intellectual faculty, or of the state of any passion, or one that happens but rarely, that proves adequate to the effect. For the effect, in that case, would be either too slight, or of too short continuance; to merit the title of disease. It is an often returning, or deeply affecting, irritation upon the brain, and, therefore, one that leaves a lasting impression, which has any consider-

(a) See CXLI.

(b) See CXLI.

able force in producing this disease. In this last way, an eager, inordinate, and vast desire for the attainment of high objects of pursuit, the impulse that hurries on to the revenge of a great injury, and the horror that arises upon the perpetration of it, the fear of future punishment for crimes, are held up to us as productive of high commotion of mind, in the examples of Cataline, Orestes, and Francis Spira. As often, therefore, as the mind is so excited in its ideas and passions, as not to be capable of being composed to rest and sound sleep, after a certain short continuance of those, or other stimuli; so often are we to conclude, that this disease takes place.

CCCCXXXIV. As the hurtful powers just now mentioned (*c*), produce this disease; so there are others, which belong not to this place, *but* are to be mentioned, that also repel sleep (*d*).

CCCCXXXV. To pervigilium belong all the hurtful powers that have been already mentioned in mania (*e*), whether acting with-

(*c*) See the par. CCCCXXX. and CCCCXXXIII.

(*d*) The rest of the sentence in the original is struck out as belonging to asthenic watchfulness.

(*e*) See from CCCCXXVI. to CCCCXXXII.

in or without the brain, but acting with less force, and which yield to the asthenic plan of cure.

CCCCXXXVI. As the powers stimulating vigorously in this way (*f*), and without any diminution of their sum of stimulating, produce pervigilium; from that we learn, that the cause of this disease is the same with that of the rest of the sthenic form of diseases (*g*), and that the same is the state of body in which every one of those diseases consist: Nor is it understood, that different hurtful powers, but precisely the same, with only a variation in the proportion of their force, which often happens to other sthenic diseases, precede *this disease*.

CCCCXXXVII. The same fact is also discovered from the functions, of which, though these diseases are called apyrexia, or without pyrexial state, the pulse, however, is not altogether free of disease (*b*). On the contrary, it is as much stronger than in health, or in the predisposition to asthenic di-

(*f*) See CCCCXXXIII.

(*g*) from CXLI to CXLVIII.

(*b*) See CCCCXXX. and CCCCXXXI. and the note to the latter.

seases,

feases, or in those diseases themselves, as there is more vigour, and more excitement upholding that vigour, in the system (*i*). And the state of the other functions, except those of the brain, that are chiefly affected, is truly the same as in the milder sthenic affections, or in the predisposition to these. But, if the brain in this disease, and in mania, is much more affected than the rest of the body; there is nothing unusual in that circumstance; it being an universal fact with respect to both diseases and the predisposition to them, that some part is more affected *than any other part* (*k*).

A Description of Obesity.

CCCCXXXVIII. Obesity is a sthenic apyrexia (*l*); in which in consequence of an excess of health, rich living, especially in the article of food, and an easy sedentary way of life, the fat rises to the degree of incommoding the functions.

(*i*) For a proof of their vigour maniacs have often four times the strength, they used to have in health.

(*k*) See part first, Chap. IV. and in it XLIX. and LII. CLIX. CCV.

(*l*) See CCCCXXV.

CCCCXXXIX. That obesity, so defined, is a disease, is understood from the definition of disease (*m*); and that it is a sthenic disease, appears from the certain signs of sthenic diathesis in it. Of which, the strong action of the stomach, whether the appetite or the digestion be considered (*n*), and the strength of the other digestive organs, are a glaring proof.

CCCCXL. And as in this disease, the stimulus of the exciting powers, raises the excitement above that degree of it, which suits good health, to that in which sthenic diathesis consists, without which last there could not be such force in the *action of the* stomach; and of the organs that form chyle and blood; so, it is in common to this with the other diseases called sthenic apyrexiaë, that the sum of all the stimuli is much less than in the other diseases of the same form, that is, those with pyrexia and inflammation; that it never rises to the extreme height at which indirect debility is produced, and is never indeed so great as to be sufficient to have any considerable effect on the heart and vessels.

(*m*) See IV.

(*n*) See par. CCLXII.

CCCCXLI. But it happens to all those diseases, that both these last and all the other functions, get somewhat above the standard of the sound functions, and a great deal above asthenic diathesis. And the sthenic apyrexia differ from the other sthenic diseases chiefly in this, that the exciting powers keep much within that degree of *force*, that wastes the excitability much; as is perceived from the proof of the effect; for they are diseases of much longer standing than any other asthenic diseases.

CCCCXLII. From which fact, however much the brain may be affected by its own proper stimuli; however great the quantity of blood in its vessels may be; unless to the excitement arising from these, that *excitement*, which the other stimulant powers produce, be added, it is certain, that the general effect will be much less, and that the united energy of all the powers has far more effect, than the separate force of any.

CCCCXLIII. The diathesis, then, in these diseases, is, upon the whole, less than in the rest of the sthenic diseases; that of a part, as of the brain in mania and pervigilium, and of the blood-vessels in obesity, is pretty con-

fiderable. The whole is in general as great as that in the predisposition to the other diseases, and exceeding its force in the labouring part. Hence it comes out, that, contrary to the nature of those other diseases, and similar to the predisposition to them, they are usually of long standing and duration, and for this reason, that the mediocrity of the sum of stimulant operation never consumes the excitability, and always produces too much excitement. The great tumult of symptoms in the brain and *blood-vessels* in these diseases does not imply a great sum of excitement, for this reason, that the affection of a part, however formidable, compared with the affection of all the rest of the body, is infinitely inferior in its degree(*o*). However much, then, any stimulus presses upon a part, and from that spreads at large over the rest of the body; unless, however, other stimuli, applied to other parts, sustain its operation, so as that the sum of the operation of them all may deeply affect the whole body; the effect of the solitary stimulus, making a figure in a part, will be less considerable in the rest of the body: In fine, it must be kept in mind, that every violent disease always arises from

(*o*) See par. XLIX. to LIII.

the excitement which the united force of several stimuli has produced.

CCCCXLIV. In these sthenic apyrexiaë, as a certain part, the brain in the two first, and the blood vessels in the last (*p*), is much more affected, and in greater proportion, than in the other sthenic diseases, because the affection of the part is much less supported by stimuli acting upon the other parts; so the stimuli, acting in that way upon the labouring parts, are, however, understood to affect the rest of the body, though less considerably. That this is the fact, is proved by there being *in this case*, no asthenic diathesis, and evidently such a sthenic one, as upholds the predisposition to other diseases of the sthenic form; by the remedies, which affect other parts, as it will by and by appear, being aiding in the cure here, and by powers of a contrary nature, always proving hurtful. Whence, it is an evident and certain truth, even here, where it might have been least expected, that every stimulus that affects a part, affects the whole body, upon account of the excitability being one uniform, undivided, property over the whole.

(*p*) See par. CCCCXLIII.

CCCCXLV. With

CCCCXLV. With respect to obesity in particular; that the other hurtful powers, as well as food, have more or less effect, one may know from the certain fact of the digestive powers, which depend upon the influence of these powers, being of such force and vigour, as to perform their functions more perfectly in *fat persons*, than in others, who are, nevertheless, not by any means weak. Yet these hurtful powers are applied in a degree short of that, which being ultimately excessive, or approaching nearly to that, puts an end to excitement by wasting the excitability, or which tends, by a high degree of disturbance, to exhaust the body.

CCCCXLVI. Thus passions are not with such persons too stimulant; a circumstance known to the generality of mankind, among whom it is an adage, that fat persons are commonly good natured (*p*), while

(*p*) This must be taken with more than grains of allowance; since such is the effect of the different motives to human action received from example and education, that the passions themselves are drawn into a subserviency to every person's predominant pursuit. I have known a person in Edinburgh get great credit for his integrity, though that was not extraordinary, from roughness of manners and an affectation of passionateness; while the dissimulation

while morose persons are for the most part lean. Thus it is observable, that fat persons are averse to thinking, which is a great stimulus(*q*). They are averse to bodily motion, by which all the functions, and particularly that of the vessels, are much excited, and the perspiration proportionally promoted; and *they have* so far reason for it, that all motion is more fatiguing to them than to others. Hence, that quantity of fluids, which under motion is usually thrown off by the pores on the surface, and turned out of the course to the adipose cells, has a great opportunity of quitting the direction to the

diffimulation of that real disposition is the more general engine among men of promoting their interest. At any rate, so much more than mere appearance of temper, which may be so much over-ruled, is necessary to the establishment of maxims; that I should think my life or property upon an insecure footing, if it depended on the good nature of a person, for which the only security was his fatness.

(*q*) The most poring persons are the atrabilarians, who, though they are not calculated for the elevation of mind that discovery requires, have, by their assiduity, contributed much to the improvement of many of the arts. They are commonly very meagre, indeed, and indefatigable in any pursuit, to which they give themselves up.

former,

former, and of turning aside, in a state of rest, to the latter.

CCCCXLVII. After explaining the peculiarities of these diseases; *it is now to be observed*, that, since the affection of a part in general disease, depends upon the general affection, is of the same kind, arises from the same exciting powers, and is removed by the same remedies (*r*); it is from that reasonable to believe, that the affection of a part, whether it be inflammation, or a greater affection of the brain or vessels, than of any other part, is not different in different cases, but altogether the same in all; that it only differs in some trifling circumstances of no signification, and by no means requires a different *plan of* cure, or affords fundamental distinctions; and that a mistake, which has had the most ruinous effect upon the art, must be done away. It is with propriety, then, that all the diseases that have been treated of, have been reduced not first to two genera, and after to species (*s*), but, without regard

(*r*) See part first, Chap. IV. and particularly par. LIH.

(*s*) which was attempted and dropped in the first edit.

either to genera or species, only to two forms.

CCCCXLVIII. Further, as in all those diseases the whole morbid state, either in so far as it is universal in the system, or confined to a part, proves hurtful by giving too much excitement; and as the remedies, that remove the general morbid state, also remove the portion of it confined to a part, and are never to be directed to a part (*t*), with the view of removing, by their action upon it, the disease, as if all locked up in it; the meaning of all that is, to lay a sure foundation for the establishment of a certain series, or scale, of increasing strength from perfect health to the most sthenic disease. In that scale peripneumony holds about the highest, and obesity the lowest, degree.

CCCCXLIX. Peripneumony and phrenitis in the upper end are followed by two diseases, that sometimes equal them; the violent small pox and measles. These two are succeeded by a disease, that sometimes vies with them, the erysipelas, when accompanied with a most severe affection of the head. Equal

(*t*) See par. LVI. and XCII.

to this, not in danger, but for the most part in the degree of diathesis; rheumatism comes next. Next to rheumatism is marked the mild and gentle erysipelas, *far short of those above it in violence*, and claiming nearly an equal place to the sthenic cynanche, being much more nearly allied to the latter than any of the former. Those are the diseases accompanied with pyrexia and inflammation.

CCCCL. Of these two which stand lowest, the mild erysipelas and the sthenic cynanche, or common inflammatory sore throat, are of so doubtful a rank with respect to each other and catarrh (*u*), a disease without the accompaniment of inflammation; that it is doubtful which of them all should be set above the others. Below them, however, the simple synocha and scarlet fever, in so far as the latter is an asthenic disease, and in so far as the usual state of them both is considered, are to be placed without any hesitation (*x*). The lowest part of the scale of
asthenic

(*u*) See CCCXCIV. and the note to it.

(*x*) The simple synocha is so similar to a gentle typhus, that it requires great judgment to distinguish them at first. The safest way, when the doubt cannot be determined,

sthenic diseases with pyrexia, is assigned to the small pox and measles, in their mild state.

CCCCLI. Through this whole scale it is not so much the titles and names, that have been made use of, but morbid energy, that is regarded; it being the certainty derived from the cause, not the uncertain and perfectly deceitful consideration of symptoms, that was to be considered (*y*). The investigation of symptoms, which has hitherto been devoid of all benefit, has been of the highest detriment to the art; and as much in medicine the most productive source of fundamental blunders, as the question about abstract causes had been in the other departments of philosophy (*z*), must be laid aside, and Nosology damned.

is to keep the patient in a moderate temperature, and in a state of rest; as any debilitating power, in case the disease should turn out a typhus, would be dangerous; and, though it should afterwards manifest itself a synocha, still its mildness renders the omission of any thing that might have been done, innocent; and it is always easy to take down sthenic diathesis.

(*y*) See par. LVIII.

(*z*) See par. XVIII. and look into Observations on the different systems of physic, and in it the introduction throughout.

CCCCLII. Be-

CCCCLII. Below the last mentioned diseases, mania, pervigilium, and obesity are set. Betwixt which, and the diseases mentioned above, is the *point of perfect health* to be fixed (*a*).

The Cure of the Sthenic Form of Diseases.

CCCCLIII. To apply the indication of the cure of the sthenic form of diseases to practice; that mentioned before (*b*) will be accommodated first to a violent degree of the diathesis and danger of parts, in such a manner, as that regard only will be had to the degree of *force* in the remedies (*c*).

CCCCLIV. When, therefore, a violent diathesis is discerned, as in peripneumony, phrenitis, the small pox, the measles, and erysipelas, in the highest degree of these three last, immediate recourse must be had to the most powerful and quickly effectual remedy; and so much blood should not be taken, as many who entrust nearly the whole cure of the

(*a*) It will be easy for the reader with the directions above to make out the table for himself.

(*b*) See par. LXXXVIII.

(*c*) See also par. XCII.

disease to it, think (*d*), but more, however, than others are of opinion, should be taken away (*e*).

CCCCLV. No measure suits all cases; the quantity to be taken being different in different cases, as those differ in age, sex, strength, and in the degree of force applied by the exciting hurtful powers. In childhood, which, excepting the measles, and small pox (*f*), is seldom affected with the diseases we have mentioned, and in a very advanced age, which is also in less danger than that at the flower of human life; sparing bleeding succeeds for this reason, that, at both those ages, it is a lesser degree of excitement that upholds the disease as a cause; while in the former, the high degree of excitability, in the latter the necessity for more stimulus or ex-

(*d*) which is the common practice;

(*e*) The most early among the Alexipharmac practitioners, after once making his escape from peripneumony without bleeding, fell a victim to the folly of his theory in the next attack. The Alexipharmacs in general were too moderate in their bleedings in the true, though few, sthenic diseases that require it, and all in the wrong in their use of heating stimulant prescriptions in them.

(*f*) See par, CCCCI.

citing power, than formerly, set bounds to *the measure of the remedy.*

CCCCLVI. A better rule for limiting the degree of bleeding is the relief, or temporary solution, of the urgent symptoms. If, therefore, after blood has been taken, the great heat, the hardness of the pulse, the affection of the head or of the lungs, and dryness of the surface, shall have gone off, or been much abated; and now the temperature is discerned to be much more moderate, the pulse more soft, and less frequent, and the surface of the body more moist, at least less dry; if the pain is every where quieted, the breathing relieved, and the delirium removed (g); then it may be looked upon as certain, that enough of the vital fluid has been shed for the time.

CCCCLVII. To obtain that benefit, in the most vigorous adult state 10 or 12 ounces, and much less *either* before or after *that period of life*, will for the most part be found suffi-

(g) The references for facts are CLIX. CLV. CCCXXXIV. CLVII. CLXXIV. CCCXLIX. to CCCLV. CLIV. CLIX. CLXXXIV. CCCXXXIII. to CCCXXXVI. CLV. CCCXLIH. CCCLIV. CLVIII.

cient. As this rule will not answer in every case, when it fails, recourse must be had to that, which recommends the abatement of the symptoms as a direction more to be depended upon (*b*).

CCCCLVIII. Since the local affection depends upon the degree of the general (*i*) diathesis, remember, therefore that there is no occasion for any particular direction with regard to it, any farther, than to take advantage of its being accessible to help the general remedy by an application of it to the part (*k*).

CCCCLIX. When that has been done, and the first violence of the disease is now broken; we must next have recourse to purging the belly, as a great remedy in point of efficacy (*l*). To effect which, we should not employ violent means, such as many formerly employed (*m*); the stimulus accompanying

(*b*) See CCCCVI.

(*i*) See above LVI. and CCCXLII. to CCCXLVI.

(*k*) Ibid. an instance of such assistance may be the local bleedings over the pained part in rheumatism and the gout and some other asthenic remedies are aided by local stimuli.

(*l*) See CCLXXXIII.

(*m*) the Alexipharmacs particularly

the first operation of which being liable to be hurtful; but it is the gentle cathartics that should be depended upon, such as Glauber's salts, which are highly debilitating, and carry a great quantity of fluids out of the vessels. Though a man of good sense in the last century used these day about with bleeding; yet, if the violence of the disease should be urgent, there is nothing to hinder the use of them the same day that the blood has been taken.

CCCCLX. Purging, after a sparing bleeding, has more effect in overcoming sthenic diathesis, than any bleeding without it; because, as it has been mentioned above, in that way the debilitating power, (which has always more debilitating effect in the place to which it is first applied, *than in any other*,) is applied to more parts; and not only to the greater blood-vessels, but also to a prodigious number of their terminations; and the excitability is more extensively, and therefore, with more equality diminished (*n*).

ω. Vomiting, which, in asthenic diseases, where it is pernicious, has hitherto never

(*n*) See par. CCCCLXXXIII. CCCCLXXXVI. also CCCV.

been ^qmitted in the common practice, and in sthenic ones, where it is of the greatest benefit, ever neglected, comes in here as a proper part of cure; being of the same evacuant nature, and in another part of the same canal, and admitting of all the reasoning that has been applied to purging (o).

CCCCLXI. At the same time that the excessive, and therefore hurtful, use of the lancet is superseded by those two last mentioned evacuations; its use, however, is not altogether to be laid aside in the diseases of excessive excitement; and for this reason, that the excitement, by its stimulating operation often rises to that high degree, that, from the consumption of excitability which puts an end to its existence, threatens instant death (p).

CCCCLXII. Besides, those remedies (q), the patient should always be required to abstain from every sort of food but vegetable, and in a fluid form, as well as from all strong drink, and *indeed* all but watery drink, ac-

(o) See the same. What respects vomiting here, is a supply of a great omission, that had run through both editions of the *Elementa Medicinæ*.

(p) See par. CCLXXXI. and CCLXXXIII. CCLXXXIV.

(q) From CCCCLIV to CCCCLXII.

cidulated (*r*). This direction does not seem to have been so much neglected in words by former *writers and authors*, as in fact and actual application to the practice; it having been delivered slightly, by the by, and as if it had been thought of no consequence, *with such effect*, that its force made no impression upon the mind of the reader or hearer. No stimulus is more powerful, and, therefore, *in this part of the practice*, more hurtful, than that of the articles of diet: Consequently, whatever quantity of blood is taken from its vessels, whatever quantity of serous fluid is carried off by the mouth and anus, if that stimulus is not roundly guarded against, all this evacuation may easily be frustrated. While that is the case, still fluid vegetable matter is not to be discharged, and for this good reason, that watery matter is not kept in the vessels; but, easily entering the smallest of them, flows out in all directions by their various outlets; and, at the same time, supports the efficacy of another remedy (*s*), by and by to be mentioned.

CCCCLXIII. Conjointly with the use of the first bleeding, of the first vomiting and

(*r*) See CCLXXXIV.

(*s*) sweat.

purging, and that of abstinence and watery drink, it must not be forgot, that particular regard must be paid to temperature (*t*): For, if cold always debilitates, and if that is its proper operation (*u*), if it only seemingly acts otherwise, because heat succeeding to its action, or alternating with it (*x*), converts it into a stimulant one, if it alone is adequate to the cure of the small-pox (*y*), and prevents the violence of that disease, if it is the best remedy for catarrh (*z*), and, when heat is avoided, of the greatest assistance in every sthenic disease; it is not to be doubted, but that it is of the greatest benefit in the diseases of the highest sthenic diathesis.

CCCCLXIV. Its operation in the small-pox, and in the rest of the sthenic diseases, is not different, but altogether the same. Nay, in all the diseases of this form, as cold alone is sufficient to effect the cure; so, whenever the diathesis, which is the case in the diseases that make our present subject, rising

(*t*) See par. CCLXXXII.

(*u*) See par. CXVII.

(*x*) See XXXVII. and the addition.

(*y*) See par. CXXI.

(*z*) See CCCCVII.

to its greatest rage, demands instant relief; because, *in that case*, every moment's delay brings instant danger; because the remedies, which we have mentioned, are sufficient for the solution of the disease, of which we have the direct proof in the practice; because that degree of cold, which could produce that effect, is neither always within our reach, nor can be managed by every person; and many persons might not be disposed to believe its effects so beneficial: For those reasons we should not desist from the plan of cure here laid down (a), and do our best for our patient, by taking off the blankets, and other clothes, by cooling the room, and, instead of laying him on a couch or bed, putting him into a chair.

CCCCLXV. This plan of cure should, for the most part, be preferred to *that of* the most intense cold, for this further reason, that the shortness of the time in which any one could possibly remain in it, would oblige him immediately to return to a higher temperature, which would produce a greater stimulus of excitement, *than that he had been un-*

(a) From CCCCLIV. to CCCCLXV.

der

der before *his exposure*, at least too great a stimulus (*b*).

CCCCLXVI. Since such is the operation of cold (*c*), the power falsely imputed to it, of occasioning the striking in of the measles, is to be imputed not to cold alone, but to heat and other stimuli; giving, as has been explained, more excitement (*d*), than if it had not preceded. And why not? If cold does not interrupt the eruption in the small-pox; but, on the contrary, by an enlargement of the diameters of the perspiratory vessels, which are shut up by sthenic diathesis, highly promotes the discharge of that matter (*e*): Why, in a most similar case, should its operation be supposed different, not to say, diametrically opposite? Must we again have the trouble to refute the false notion of thinking a cause precisely the same should produce contrary effects? Cold diminishes the eruption in the small-pox: It makes it disappear in the measles. What then? Take a nearer view of the fact: Is its effect in both these cases to be

(*b*) See XXVI.

(*c*) Look back from CCCCLXIII. to CCCCLXVI.

(*d*) See XXVII. and the addition, and CCCLXXX.

(*e*) See CCCLXXVI.

supposed

supposed the same, or different? How comes any person to know, that the matter, which has disappeared, is driven into the interior parts? What proof will you bring of that? Confess the truth: And be candid enough to acknowledge, that this is another relic of the alexipharmac doctrine, *handed down to us*, which supposed, that the stimulus of heat as well as other stimuli promoted, and that cold impeded, perspiration. And after a great man had shown the error of that doctrine, both in the small-pox and other diseases (*f*), because he did not carry the application so far as the measles, neither has any one of his followers, who never could step a nail's breadth beyond his words. But it might have been observed, *if observation had been any part of their employment*, that the measles was a sthenic disease as well as the small-pox. Are not all the successful remedies in both of the debilitating kind? And as it was manifest, that in the small-pox also cold debilitated, or in the common language, acted as a sedative; might not some suspicion have, from that very circum-

(*f*) In peripneumony he took his patients out of bed, and set them in a chair, for the sake of cooling them, and avoiding the hurtful effect of heat.

stance,

stance, occurred to their mind, that cold, in the measles, did not stimulate, or act as an astringent; and in that way, repel the eruption, but performed the same operation as in the small-pox? Is it, to such a degree, difficult and up-hill work, to think and use one's own good sense, that, a great part of mankind, even those who take upon them the business of teaching and taking the lead of others, in no case, ever think of exercising a moment's reflection of their own? But, in this case, it may be contended, that the action of cold is peculiar, because, after the eruption, *which it is supposed to check*, has disappeared, all the symptoms encrease in rage and violence. Consider what that circumstance makes for the argument, or whether it makes any thing, and not absolutely against it? Was the action of cold, that is supposed, followed by *that of* stimulant or debilitating powers? If it was by the former, the cause of the mischief must be imputed to them; which, as has been said just now (g), produce excessive excitement after a previous application of cold, and more than without it; if the latter, *or debilitating*

(g) in the last paragraph but one.

powers

powers were used, then there would not be wanting a suspicion, that cold had a concern in the effect. But it is not so: And, in every case, in which the action of cold has been followed by sthenic diathesis, the true cause of that effect is not sufficiently guarding against the stimulus of heat, as well as that of other noxious powers. And this is most clearly proved by the use of heat being positively ordered, instead of being forbid, in the common practice. Nor is that to be wondered at: For if the cause of catarrh (*b*) deceived physicians so much, the catarrhal symptoms in the measles could not fail to deceive them. And, if doctrines, discarded in words, are often kept up in fact; what was there to hinder this part of the alexipharmac doctrine, from meeting with a similar fate?

CCCCLXVII. If cold, therefore, can scarce be so managed, as that the effect occasioned by the accompaniment, the succession, or the alternation, of stimulants with it, may be prevented, whether that be the fault of the physician, or owing to the difficulty of the nature of the thing (*i*); it is, notwith-

(*b*) See from CCCCVII. to CCCCXII.

(*i*) Turn back to CCCCLXV. and CCCCLXVI.

standing, a rule in common to the measles and other exanthemata of the same stamp, to avoid heat, and compensate for the degree by the greater duration of cold, and to guard with all possible care against every stimulant power. It is now then most evident, that the opinion of cold being peculiarly hurtful in the measles, both in that and every other disease of the same form, falls to the ground.

A Repetition of the Cure.

CCCCCLXVIII. After using the remedies which have been mentioned (*k*), when the symptoms are renewed, the same train of medicines must be again gone through: Blood must be again taken, emetics and purgatives again administered; nor must we desist from the use of the refrigerant and attenuant plan: And all these particulars must be executed, till the tumult of the symptoms be allayed, and the healthy state, at least for the time, be restored; and perhaps *the repetition may be required* a third time or oftener: After doing which;

CCCCCLXIX. If the diathesis seems now nearly removed, if the affection of the head,

(*k*) from CCCCCLIV. to CC CCLXVIII.

of

of the lungs, or any internal one, seems alleviated or repelled; and yet there is some apprehension of a likelihood of the return of the disease: in that case, recourse must be had to more gentle debilitating powers. Sweating, the stimulus accompanying the first operation of which, the body, as the diathesis is now rendered mild or ended, will be able to bear, must be preferred to bleeding, vomiting, and purging. But before proceeding to speak of it, it seems proper to say a few things upon the sum total of blood that should be taken *during the course of the whole disease*.

CCCCLXX. As in single bleedings, so also in the whole quantity of blood to be taken, the sum should be a mean betwixt those, which the common run of physicians approve, while some think too much, some too little, should be taken. The reason for this recommendation is strengthened, by the consideration of there being now less occasion for shedding a great deal of the vital fluid, since the cure is now more divided among the other remedies that have been spoken of. The age must be regarded, as was formerly recommended (1), the former mode

(1) See CCCCLV.

of life must be looked to, the quantity of stimulus, that may lately have preceded the morbid state, must be considered, and the state of the body compared with the degree of the symptoms and the effect of the cure. From those circumstances a judgment should be formed of bleeding and other evacuations; and it should be estimated, what further of the same sort may seem proper to be put in practice, or what difference of management may be required. Upon the whole, it will be found, that there will be the less occasion for any one medicine, the more freely others have been brought into use; and it will be understood, that the danger of too great evacuation will be thereby avoided, and the health better secured (*m*).

CCCCLXXI. With respect to the kind of bleeding, it should always be made from a very large vein; because the cutting a lesser one, or opening an artery, does not afford a sufficient quantity for the relief of the vessels, and arteriotomy is further attended with certain inconveniencies (*n*). As far as any certain rule, in
an

(*m*) See CCLXXXVI. and CCCV.

(*n*) The blood is ready to break out again after the tying up; and if, as some advise, the arterial twig should
be

an affair of such variety, can be established, two pounds of blood in three or four days, with the assistance of the other remedies, will, for the most part, be sufficient at the middle age of life, and less at a more early or later period.

CCCCLXXII. All bleeding should be followed by vomiting and purging, so long as any considerable part of the sthenic diathesis remains; nor should the other parts of cure, that have been pointed out, be neglected. But purging, a single dose of which can at any time, bring back a fit of the gout; which cures the sthenic cynanche or common inflammatory fore-throat, and the mild erysipelas, when even the face or head is affected; which is of manifest detriment in fevers; which, in dyspepsia, in asthma, and every sort of diseases depending upon debility, whether direct or indirect, does very great and conspicuous mischief; and is a great part of the very bad common method of cure over the whole form of asthenic diseases; in proportion as it ought to be cut through, it diminishes the number of the few accesses to this mode of bleeding; neither does there seem to be any use in destroying such vessels, especially as no good purpose can be shown for doing so.

be avoided in all those diseases, should be as certainly laid hold of in sthenic diseases, and not omitted in any considerable one, such as those are that require bleeding, but be managed according to the directions given (o) lately, and as it was *directed to be* managed before (p). And we must, above all things, be on our guard against that diffidence in the use of this remedy, as well as in that of vomiting, where they are serviceable, and that confidence in them when of disservice, both introduced by the spasmodic doctrine; and know that they were both admitted upon a false and absurd principle (q).

CCCCLXXIII. As nothing in asthenic diseases has been more used than these two modes of evacuation, nothing with more hurt,

(o) See CCCCLXI.

(p) See CCLXXXIII.

(q) The principle, at least with respect to purging, was, that it diminished perspiration, and, therefore, was understood not to act as an antispasmodic. A balance betwixt the excretion by the belly and that on the surface was talked of, and they were held for opposite operations. In such theoretical nonsense they deserted their only good leader, at least in those diseases, who alternated his bleedings and purgings, and, as I have found, upon the best foundation.

and often with instantaneous destruction ; so, for that very reason, nothing is more happy and successful *than their use* in the cure of sthenic diseases.

CCCCLXXIV. It is scarce credible to say, how far the aversion to the alexipharmac method of cure has had the effect of branding the very best medicines, what a depraved use of them it has suggested, and to what a degree it has perverted their proper use. Not to repeat what has been formerly said of that kind in other instances ; sweating, which is of the highest service, and a most efficacious means of cure, in every moderate sthenic diathesis, in every degree of it, that is not the highest; or where it presses not upon any organ of importance to life; that is, in all the diseases of this form, except in the beginning of those of which we are here treating, has, however, of late been completely banished from the cure of every one of them, but one, not only, as useless, but as hurtful; which has chiefly happened since the spasmodic doctrine began to be received into this country, and, *for a few years only*, gradually to gain ground (r).

(r) Turn back to CCCCLXIX.

CCCCLXXV. But, in truth and fact, except rheumatism (which, at least as produced by one form of a medicine, it is allowed to cure), if it most certainly either relieves or removes the sthenic cynanche, erysipelas itself, and catarrh, and the simple synocha, in proportion to the more free or sparing use of it; if that be known to the very vulgar, and most certainly to physicians, of *any other than the spasmodic* practice; what reason, what certain and well proved fact, will any one bring, *to show*, why sweating should not be used, after the most violent diathesis is much diminished by the other medicines, and is now reduced to that small degree, to which that remedy is adapted; what eloquence would be requisite to bring any man *of sense* into such a persuasion?

CCCCLXXVI. They will say, that the heat, which accompanies the first part of the operation of sweating, may be hurtful; for, as he never made trial of it, he has it not in his power to say, that for certain it will be hurtful (s). As that effect will readily be admitted

(s) It is laughable to hear such persons talk of their practice, from which they never can receive information;

ted in an high rage of diathesis, threatening indirect debility (*t*) ; it will not also be granted, that in a moderate *degree of* the diathesis, either from the beginning, or effected by the other remedies, and, consequently, after the plan of cure, that we have laid down, has been executed, that such heat will not be compensated by the great profusion of fluids taken away over the whole body ; and that, when this part of the vascular system has been freed from a violent stimulus, the diminution of excitement will not be more equal in all the

it being not the effect of any thing they know themselves, but what they have been told by others. In that way, without any exercise of judgment, without a single observation, that they can call their own in the course of a long life, do they jog on, like the blind beggar led by his more faithful dog, or, like children in the play of blind Harry, groping about with their eyes tied up, through the whole course of a practice boasted of, God knows, by no body who knows it but themselves.

(*t*) If the diathesis should rise within two or three degrees of indirect debility, in that case the heat of the first part of a sweat, by exhausting the little excitement that remains, may have a most hurtful effect. But if the diathesis be any where below that high point, the addition of stimulus can be borne for the short time of its continuance ; and be afterwards much more than compensated by the large and continued flow over all.

vessels,

vessels, and over the whole nervous system. If the numerous vessels, that open into the intestines and into the stomach, are so powerful in diminishing sthenic diathesis, how should a similar evacuation in the similar perspiratory vessels have no tendency to produce the same effect? With which reasoning if the facts just now related be further conjoined, what will any person have to say against the use of sweating, when a degree of heat, not greater than what cannot be avoided, attending the operation of the sweat, can no longer be hurtful, and the sweat itself certain to be of great service (u). Let the spasmodic caviller against the use of that remedy, in the cases of *sthenic affection where it is admissible*, muster up all

(u) In an excitement of sixty-seven, within three degrees of indirect debility, the heat in the first part of the sweat, by adding these, might kill the patient, if you will, without leaving any chance of relief from its evacuant effect. But, if the excitement be no higher than 60°, the addition of the three degrees will keep greatly within the point of indirect debility, and, therefore, be safe; while the succeeding evacuation may reduce the excitement perhaps 10°, and bring it within the rage of predisposition; and a new course, or a little prolongation of this, carry it down to the point of health, and finish the cure.

his facts and all his theories, let him turn himself into all shapes, he will never produce a solid argument against this remedy. But what, again, is all this about? Will there never be an end of running from one extreme of error into the opposite? Shall no mean be found betwixt the Alexipharmac plan of cure, and an equally bad or worse one? If that doctrine hesitated not to prescribe sweating in the rage of a peripneumony, and that too by means of the most heating stimulant powers; does it therefore follow, that a plan of cure must be admitted, which rejects the certain and safe use of that remedy, when conducted by the most gentle means? If it was the opinion of Dr. Sydenham, that heat should be avoided in the cure of sthenic diseases, *which was quite right*, as heat certainly encreases the excitement; are we, for that reason, to avoid that tolerable degree of heat, which accompanies a remedy the most powerful in restoring the healthy state, and, thereby, deprive ourselves of great benefit upon the whole? If such persons did not know, that several remedies diminished excitement more powerfully than *any* one; and, if they were to be forgiven for that; were they also to be excused for
not

not seeing, what any empiric might have seen that is, that some things were of service, and others of disservice; was that want not of genius, which is not required of them, but of common sense, also to be pardoned? If thinking without a leader, and making any sort of discovery, was too much, and not to be expected from them; is it not somewhat surprising, that out of a thousand persons, who had treated of every part of medicine, and entertained different sentiments from one another, in some measure right, and, no doubt, wrong too, they could squeeze no information, but always trod in the footsteps of one single man?

CCCCLXXVII. Sweat, therefore, after the management that has been mentioned, is to be excited, and so much the more determinedly, if there should seem something still wanting to the complete return of health, some degree of sthenic diathesis still remaining, and a spontaneous tendency to it should appear.

CCCCLXXVIII. When the signs of a spontaneous sweat arising are perceived, nothing more is to be done, but first to lay the clothes about the patient, remove the sheets,

put the blankets next to his body, guard against the approach of air, and keep up the discharge for a sufficient length of time, at least ten or twelve hours. If, by this management, there shall ensue a copious and universal flow of sweat, there will be no occasion for giving a medicine. After it has succeeded, and encreased the relief formerly procured; if it should sink in towards the end, it should at last be supported by Dover's powder, or by laudanum alone, covering the body, so as that it may get as quickly as possible to the surface, till the expected benefit be obtained. And to this management it must be added, that, if a draught of cold water be sometimes given, and then the body well covered up and properly managed, the business often succeeds to our wish. But, as in the other cases, that belong to this part of our indication, the sweating must then only be set on foot, when the mediocrity of the diathesis, procured by the other remedies, will permit; so in the small-pox and measles, because there is occasion for a certain time to allow the matter to pass away, we must also keep that in our eye, and never be too early in making trial of this remedy. Lastly, if the heat should happen to

to prove hurtful, if at any time the flow of the sweat should be attended with less relief, or with some inconvenience, it should be immediately stopped: For it was not for no purpose, but for that of making the remedies supply the defects of one another, and of reducing the excitement more equally over the whole body, that a number was recommended.

CCCCLXXIX. In all the cases of a violent diathesis, all the remedies that have been mentioned, are, more or less, and differently on different occasions, in proportion as the remaining part of diathesis may require, each in a higher or lower degree, or in a larger or smaller quantity, to be brought into play, and the curative circle enlarged: And besides them,

CCCCLXXX. Some of flighter consequence, such acids and nitre; some of uncertain *use*, such as leeching, cupping, and blistering, are mentioned, as of the first consequence. Of these, the acids, in so far as they render the drink more agreeable, and, in an affection of the lungs, do not produce cough, and prove, in a certain measure, refrigerant, are to be permitted; and more certainly, if there should be a desire for them.

Every

Every body should know, that the refrigerant power of nitre is less than is commonly thought. In rheumatism, and the sthenic cynanche if the latter should be unusually severe, blisters, leeches, and cupping-glasses, applied in the neighbourhood of the inflamed parts, may, in some measure, be of service (x). Nor does there seem to be any reasonable objection to the clapping a cap of recently dug-up earth upon the head in the case of phrenitis.

The other Part of the Indication of Cure.

CCCCLXXXI. To pass over to the other part of the indication of cure (y): When there is a gentler diathesis in the habit, as in the other phlegmasiæ, and sthenic affections, that have not been yet named *in the cure*; as in the mildest state of erysipelas, of the sthenic cynanche, catarrh, simple synocha, the scar-

(x) All from refrigerant is an addition in these words :
 “ In rheumatismo, et cynanche sthenica si quando solito
 “ gravior erit, vesicatoria et hirudines, vel concisa cute
 “ cucurbitulæ, juxta partem laborantem adhibita, com-
 “ munem quodam tenus, curationem poterunt expedire.
 “ Nec, quo minus in phrenitide pileum ex terra recens
 “ effossa, capiti imponatur, objici posse videtur.”

(y) CCCCLI.

let

let fever, and the mild small-pox and measles; a smaller force of debilitating power is required; and, therefore, neither all the remedies that have been mentioned, nor in general so much of each, as in the other part are demanded.

CCCCLXXXII. In all these cases, not even with the exception of rheumatism, which depends upon a very great diathesis, bleeding is not necessary; and with the exception of that disease, bleeding, with any degree of freedom, is hurtful: For, when the excitement is not the greatest, and, on the contrary, is moderate, scarce exceeding that degree that produces the predisposition to other diseases; in that case it is absurd to make use of a most debilitating power, by way of a remedy, as if we had to combat a very violent disease. And, since the intention in bleeding is to prevent an ultimate excess of exciting power from producing a cessation of excitement in death, an event of which there is not the least danger, in a moderate diathesis, such as that, which is the cause of the diseases here in question; for that reason, the cure must be adapted to the cause, and bleeding must be either
abstained

abstained from altogether, or very sparingly used.

CCCCCLXXXIII. It is not, therefore, only in diseases of debility, which belong to the other form (in most of which it has, nevertheless, been, and still is, the custom, to spill more or less of the vital fluid); but also in all the diseases of this form, except the very violent ones, that the lancet is to be restrained.

CCCCCLXXXIV. Though in rheumatism the diathesis often runs considerably high, the usual profuse bleeding, is not, however, required. For, as every diathesis is always greater in some parts than in any other equal one, so it is with the stenic diathesis *in this case*; which is found much greater upon the surface of the body, than in any other equal space within. And the reason is, that the most powerful noxious agent, heat, succeeding to cold, or so alternating with it, that its own stimulus is increased by its effect (z), directs its principal energy to the surface of the body. Hence, after excessive bleeding, the disease, notwithstanding, often obstinately recurs. The

(z) See XXXVII. and addition.

cause of which fact, if the principles of this doctrine be well understood, cannot be obscure. Bleeding diminishes the sthenic diathesis chiefly in the red vessels, less in any of their extremities, least of all in the perspiratory vessels, and those disposed of in the tract of the muscles; and still less in the last, because the operation of the bleeding is counteracted by that of heat: Which is an explanation confirmed by the certain testimony of physicians; who often complain that their favorite remedy fails them.

CCCCCLXXXV. Upon which account, sweating, which we spoke of *so* lately, is remarkably adapted to *the cure of* this disease: To it, therefore, after a previous bleeding to twelve ounces, and observing the rule of temperature and diet before directed, must we have immediate recourse, if the diathesis happens to be considerably violent, and is signalized by heat *of the body*, by pains raging most in the night time, and by a strong and hard pulse. In order to render the sweat universal, and of sufficient duration, it should be brought out by Dover's powder, or laudanum, *as before* hinted, and kept up for twelve hours in full flow, and then some hours longer, or till the
abatement

abatement of the symptoms, in the form of a moisture or free perspiration, and repeated when the symptoms return. The rest of the cure must be entrusted to low diet and an exact temperature.

CCCCLXXXVI. In this case, after the sweating course, and also in that of a simple synocha, of the scarlet fever, of the sthenic fore-throat, of catarrh, erysipelas, and the gentle small-pox and measles, when the diathesis is somewhat considerable, but far short of that rage which constitutes the case of cure first taken notice off; we should use either a very small bleeding, and then chiefly the evacuations before-mentioned (a); then a slight and short sweat ought to be kept up not longer than eight or ten hours; and, during the whole time *of the cure*, we should go on with abstinence, weak drink, rest of body and mind, and cold, unless in the time of sweating, and even then, with as little heat as possible; and, finally, with tranquillity of mind, as these were formerly enjoined: The united use of which is perfectly equal to the removal of any of these diseases; but there will not always be occasion for them all.

(a) See CCCV.

CCCCLXXXVII.

CCCCLXXXVII. Often so gentle a diathesis occurs, that one or two of them, once or twice employed, is sufficient for the cure: So slight a diathesis that is, in which, unless for a little at first, the shivering, langour, and then heat, is very moderate, pointing out a proportional slightness of diathesis upon the surface; in which there is scarce any lassitude, showing the same moderation of diathesis in the organs of voluntary motion; in which the vigour of the stomach remains, manifesting a moderate excess of excitement in it; in which, in fine, the other functions, over the whole body are sufficiently calm, and only suffer conspicuously in the labouring part: In these cases, often a single purge with Glauber's salt, often, without that, cold, rest, and abstinence, have conducted the morbid excitement to its salutary degree. A thousand times has the sthenic cynanche, a thousand times has catarrh and the simple synocha, nay erysipelas itself with affection of the face, been in that way removed. And the scarlet fever is often so gentle as to yield to the same management.

CCCCLXXXVIII. In this way must a constant regard be had to the degree of excitement

ment and diathesis in the method of cure, and often terms must be disregarded. For, as it was with this view, that the simple synocha was before distinguished from the phrenitic, and the gentle erysipelas from the violent; so, it often happens, that catarrh rises to that magnitude that threatens or brings on a peripneumony, and that the latter proceeds with much more gentleness than usual. In which circumstances, it is the degree of excitement alone, that ought to govern the physician, without respect to names.

CCCCLXXXIX. Another useful caution here is, to judge of the state of the pulse, of the temperature upon the skin, and of the skin in other respects, with good sense, and due reflection upon these principles. The frequency of the pulse in all sthenic diseases is moderate: With that there is conjoined some hardness and fullness. Whenever, therefore, the pulse is very quick, it is to be suspected, that the sthenic diathesis has passed into the asthenic, the excessive excitement into a cessation of excitement, or that the disease has been ^{an} sthenic from the beginning. To remove which doubt and ascertain the truth, the habit of body, the age, must be considered, and

and an enquiry be made to know, whether the disease has been preceded, or not, by contagion. Heat of the skin is in common to these diseases and fevers, which are diseases of an opposite stamp, and therefore a doubtful mark. Which, as it depends upon an interruption of perspiration, from whatever source, is never to be strained into a proof of the state of excitement. And, since dryness of the skin, which is in common to the same diseases however different from each other, in the asthenic diseases depends upon debility; in order to know the amount of what that symptom means, the other symptoms and the exciting hurtful powers, should be considered. In fine, the only enquiry should be, whether the excitement is abundant or deficient, and all the signs should be consulted with that view; nor are we to judge rashly of any peculiar form.

CCCCXC. When, therefore, the signs, that have been related, are compared with all the rest and with the diathesis, we are then to set about the antisthenic or stimulant plan of cure. The violent sthenic diseases, which we first considered can scarce be confounded with the contrary ones; the more gentle are daily confounded. But, while it is easy to

distinguish them from the asthenic diseases resembling them; if, however, any person should think the *marks of distinction* ambiguous, let him know, that, upon account of that gentleness, *though the disease under examination should be asthenic*, blood is not even to be let, much less *under the apprehension that they may turn out as sthenic*; to which last so debilitating a power is destructive, as it has *so often already* been said upon former occasions; and, with that information, let him understand, that his method of cure *conducted* in that way, will be fenced and secured from all mistake. For, if the diathesis, though sthenic, be slight, bleeding will often precipitate it into the opposite, and will at the best be useless (*b*). If, on the contrary, the disease that passes for a sthenic one, should, in its progress, show itself an evident asthenic one; in that case, every drop of blood that

(*b*) Suppose the diathesis be two degrees above the highest of the points of predisposition, at 57° ; and bleeding to the degree of producing 35° of debilitating influence be employed; it is evident, the excitement will go down not only the 17° necessary to bring it to the point of health, but sink to 22° , that is, 3° below the range of predisposition to asthenic disease, and therefore complete the conversion of the sthenic into an asthenic disease.

may

may have been taken will go to the encrease of the disease (*c*). Yet this pernicious and daily practice sends more men out of this world, then all the curses of human life (*d*)

CCCCXCI. As abstinence, cold, and the management of the belly, are sufficient to prevent a gentle state of the small-pox; so, when that proper preparatory plan has been neglected, and now a crowded eruption appears; besides those, trial must be made also of the other remedies (*e*), except sweat. But sweat must be avoided, because the tendency of the stimulus accompanying it, by increasing the sthenic diathesis on the surface, would be to check the perspirable fluid, and detain the contagious matter under the scarf-skin, and produce that pyrexia, symptomatic of the inflammation, which is called the secondary fever. This particularity of cure is taken from the particularity of the symptom just now mentioned, and forms no objection to the principles of this work. In perfect consistency with which, though there is all the proof that can be derived from sure practice,

(*c*) See CCLXIX. CCLXXXI. CCXC.

(*d*) See par. CCCCVI. towards the end.

(*e*) CCCCLIII. to CCCCLXVIII.

that the remedies we have mentioned are sufficient; yet, before the eruption comes on, there is nothing can be objected either to sweating or bleeding, as remedies in common to this with every other sthenic disease (*f*). In fine, as the success of low diet, cold and purging, in this manner, is certain; at the same time, the other remedies, that remove sthenic diathesis, in this case likewise operate to the same effect (*g*). It was proper to say so much for the sake of showing the unexceptional steadiness and universality of the principles of this work. Nor are we to think, that the small-pox and measles, differ from other sthenic diseases attended with pyrexia, but in the particularity of their eruption in running a certain course, and not admitting of an accelerated cure.

(*f*) The small-pox is, in one word, to be treated as any sthenic disease, according to its degree of morbid state, and the eruption is only to be regarded during the period of its existence, either with respect to the exception of sweating then, or of any thing else.

(*g*) It is not, that low diet, cold, and purging, operate by any peculiarity, but because they debilitate to the degree, and in the manner required, of the other remedies.

CCCCXCII. We are not to wait the arrival of the symptoms of debility, that follow a violence of diathesis, and threaten certain death by indirect debility, with the view, forsooth, that, when they have happened, we may cure them: On the contrary, they ought to be prevented by the early administration of the remedies, *now so* fully commented upon. If that should be omitted, the consideration of the diseases that will be the consequence, and which is altogether an asthenic consideration, must be referred to the asthenic form.

CCCCXCIII. As often as sthenic diathesis happens to be conjoined with the pyrexia, which is induced by the operation of stimulants, of acrid substances, of compression, of obstruction, and similar hurtful powers acting upon a sensible part, of which we have examples in gastritis, enteritis, nephritis, cystitis, hysteritis, hepatitis, or the inflammations of the stomach, of the intestines, of the kidneys, of the bladder of urine, of the womb, of the liver (*b*); the diathesis, because it aggravates the pyrexia, should be removed by its respective remedies, to wit, the debilitating

(*b*) See LXXXI. LXXXIII. LXXXV. LXXXVII.

ones. And, when neither it nor the asthenic diathesis is present, nothing should be attempted: But, if the asthenic diathesis should be present, which very readily may happen; the stimulant plan should be proceeded upon, to prevent a very bad disease (*i*). Nor, when that is as much as possibly attended to, are we to forget, that, in so doing, the principal affection is not touched; that, on the contrary, it is its effect, not its cause, that is tampered with; and that the full consideration of *such*

(*i*) As asthenic diseases to sthenic ones are in the proportion of ninety-seven to three of the hundred; such also must be the frequency of predisposition to them: The inference from which is, that as we are seldom in the most perfect state of health, and consequently, for the most part, under some degree of predisposition, all the chances are greatly in favour of that predisposition being the asthenic one. Hence, the impropriety of treating all local diseases in the same way, and as if they were general sthenic ones. Death has been too often the consequence of that practice, when the local fault, for which it was intended, was no more, perhaps, than a thorn pushed under a nail, a cut, or contusion of a finger. In such circumstances, however fully the person may have lived, wine is withheld, fluid vegetable matter prescribed, and the routine of every species of evacuation gone through. Dismal are the consequences of gun-shot wounds on this plan of cure. Turn back to the paragraphs LXXX. and LXXXI. and the notes subjoined to them.

cases

cases belongs to the local diseases, afterwards to be taken notice of.

CCCCXCIV. Besides all the remedies now mentioned, it is of advantage in every degree of diathesis to keep the mind easy and unruffled with passion or emotion; a practice that in the very high degrees of the diathesis is indispensibly necessary. Our attention will especially be directed to this particular, when we observe, that the stimulus of thinking and of any passion, carried to a great height, has had a share in the production of the disease.

CCCCXCV. In mania, therefore and per-vigilium, this direction must be particularly, and as much as possible, attended to. In the latter of which diseases, thinking, and every state of commotion, and more certainly an habitual practice in them, must be shunned, especially before going to bed. When the patient is resting there, he should have stupid books read to him, all inordinate desire, the propensity to revenge, the remembrance of every degree of criminality, of which he may have been guilty, should be diverted from his recollection (*k*).

(*k*) See above CCCCXXXIII.

CCCCXCVI. That fact of great consequence, to give corroboration to this whole doctrine, is confirmed by this other, that the same things, which are serviceable in pervigilium, or the morbid watchful state, are also serviceable in mania, or madness, only administered in a higher degree, as that is a disease of a higher degree of excitement. Thus, it is not ease and tranquillity of mind that are to be prescribed here, both of which are quite gone, but a state opposite to that high commotion of *spirits* and irregular vigour in the exercise of the intellectual function: And, as an excessive energy of the intellectual powers, or of the animal spirits, or both, are the most noxious powers in this case; for that reason, the patient should be struck with fear and terror, and driven, in his state of insanity, to despair: As a remedy against the great excitement of the organs of voluntary motion, the labour of draft-cattle should be imposed on him, and assiduously continued; his diet should be the poorest possible, and his drink only water (1): In water as cold as possible, the patient should be immersed, and kept under it,

(1) See CCCXXVIII, CCCXXX, CCCXXXV. CCCXXXVI.

covered all over, for a long time, till he is near killed.

CCCCXCVII. If, in phrenitis the brain, in peripneumony the lungs, in rheumatism the external joints, possess more diathesis, than any other part; why may not mania and pervigilium consist more in an affection of the brain, upon which the principal noxious powers act, than of the other parts, over which the influence of those powers is less considerable? Lastly, since remedies, the first action of which falls upon other parts, are of service in those diseases (*m*), that proves, that not even in them, where you might most be disposed to believe it, the whole morbid affection depends upon the part conspicuously affected; but that the whole body is concerned in it, that the excitability is one uniform undivided property over all; that the force both of the exciting hurtful powers and of the remedies, is directed to the whole, with the inequality so often mentioned (*n*); and that the foundations of this doctrine are sure and stable.

(*m*) Part I. Chap. II.

(*n*) Part I. Chap. IV.

CCCCXCVIII. As these are the principal hurtful powers in mania and pervigilium, and the brain principally affected; so, in obesity, the hurtful powers most considerable are animal food (*o*) and rest, or sedentary life; in consequence of which last, the stimulus of exercise, which, by wearying and fatiguing the body, tends to indirect debility, is understood to be wanting. But, since, in consequence of using the same food, both in quality and quantity, and the same *indulgence in rest and ease*, some persons become fat, others continue lean; from thence it is ascertained, that all the digestive powers have more force in the former, than in the latter, and, consequently, that the other exciting hurtful powers have contributed to the effect, and that a proportional excitement follows. Of the hurtful powers, that belong to this place, an easy exercise of the intellectual faculty, *and* tranquillity of mind, which are moderate stimuli, favour

(*o*) Because no effect can arise without a cause, the exciting powers, therefore, must here have operated with more force, than in the other case; and if it should be objected, that the circumstances in both cases were equal, the difference then must be set to the account of the greater vigour of the excitability in the case of obesity.

obesity;

obesity ; over-strained thinking, and habitual indulgence in any passion, such as that of anger, *the repetition of which constitutes ill nature*, oppose it. Corporeal motion, which diminishes the quantity of fluids in the system, and, as often as it is considerable, proves fatiguing and debilitating, opposes it. Equally unfavourable to it is hard drinking ; which, in a similar manner, wears out the excitement, by constantly wasting the excitability from the high degree or long continuance of its stimulus. On the contrary, the powers that favour it, are those that act gently, and with some excess ; but never attain that high degree of activity, that inclines to indirect debility : They are powers that go on softly and pleasantly, that particularly keep up moderation in the perspiration, and thereby fill the vessels with blood ; but, because motion is avoided, they do not very much encrease the excitement of the vessels, and by means of the tranquillity of motion *kept up in the latter*, allow a fluid, that would otherwise pass off by the external pores of the surface, to turn aside into the cells of fat. Hence, though, as it has been said before, an abundance of blood is indeed a very great stimulus ; yet, without other stimuli,

muli, and that most powerful one, which muscular motion affords; it is evident, that a considerable degree of stimulus can be borne without any considerable disease, and that it always produces a predisposition to sthenic diseases, but does not immediately bring them on. Hence, it is understood, what place in the scale of excessive excitement, or of sthenic diathesis, obesity holds; what the degree of stimulant power is, and what the stimuli in particular, are that produce it.

CCCCXCIX. As the degree of curative force must be accommodated to the degree of force in the cause (*p*); *hence it may be observed*, that for the cure also of this disease the common indication is sufficient (*q*); that is, that the excess of excitement must be reduced to the salutary degree, and a remedy opposed to every hurtful power, equal to the removal of it.

D. In this case, therefore, as food is the principal hurtful power, less of it should be given, and more exercise engaged in. These are sufficient for the cure (*r*).

(*p*) See CIX.

(*q*) XLVIII. CCCCLIII.

(*r*) CCCCXCVIII.

DI. But, for the sake of bringing both *further* confirmation, as well as illustration of this doctrine; it is to be observed, that all the powers, which very much affect the excitement, and in a greater degree, than the hurtful power of this disease mentioned above, and that have a tendency, *by their stimulant operation*, to indirect debility, have the same effect; that they either prevent or cure obesity, and continue productive of that effect, till *they induce* that degree of meagerness which is connected with debility.

DII. The best method of lowering the diet, is to combine a quantity of vegetable matter with a moderate portion of animal. The next *rule* to that, is to refrain from the latter, and use the former in greater abundance. The first of these is suitable to all such persons as are liable to diseases of debility, such as the gout, the indigestion that after a long time succeeds to luxury, asthma, epilepsy, and similar others. The latter management is more accommodated to those, who otherwise enjoy great vigour, are under predisposition to sthenic pyrexia, and in the flower of their age. But, it is not, even in the latter state of the body, to be prosecuted, unless for a time; because,

because, such is the debilitating influence of that practice, that, while it is sufficient to remove any degree of obesity, especially with the addition of exercise, it is found to have signal efficacy in producing asthenic diathesis, and all the diseases depending on that.

PART

PART THE FOURTH.

THE SECOND FORM OF
GENERAL DISEASES.

OR

THE ASTHENIC DISEASES.

CHAP. I.

DIII. **T**HE form of asthenic diseases, and which is to be called asthenia, for the sake of distinguishing it from the form of sthenic diseases, which is called sthenia, is a state of the living body, in which all the functions are more or less weakened, often disturbed, almost always with
a more

a more conspicuous affection of some *function*. In the treatment of which, that order will be observed, in which the progress from the smallest disease *of this kind* to the greatest, through all the intermediate degrees, is to be followed out.

DIV. In this *part of our subject*, there occurs a great variety of symptoms; of which, because it is without meaning, and even misleading, no use is to be made in marking the scale of diseases. But, for the sake of placing what is about to be delivered in a clearer, if not a more specious, point of view, we shall begin with a simple enumeration of the principal diseases to be afterwards fully treated of.

DV. The asthenic diseases are macies, inquietude, or restlessness without sleep, the asthenic amentia, the scabby eruption, the slight diabetes, the asthenic scarlet fever, the rickets; the hæmorrhæe, or general bleeding discharges, such as menorrhæa, or a morbid excess of the menses, epistaxis, or bleeding from the nose, hæmorrhoids, or the piles; and also three morbid states seemingly in appearance opposite to these, the loitering, impaired, or suppressed menstruation; next come
thirst,

thirst, vomiting, indigestion, diarrhæa, or loose belly, and colic without pain; after these the affections of children, as the worms, the general consumption, called tabes, dysentery and cholera in the gentle state of these two; angina, the scurvy, the gentle hysteria, rheumatgia, asthenic cough, cystirhæa, or mucus discharge from the bladder; the gout of strongish persons, asthma, cramp, anasarca, dyspepsia with pain, the violent hysteria, the gout of weakened persons, the hypochondriasis, dropsy, chin-cough, epilepsy, or the falling sickness, palsy, the lock-jaw, apoplexy, tetanus; lastly fevers, as the quartan, tertian, and quotidian, *intermittents* or *remittents*, dysentery, and cholera both in their violent degree, synochus, simple typhus, the gangrenous sore throat, the confluent small pox, the pestilential typhus, and the plague.

DVI. This scale of asthenic diseases is to be understood *in* this way, that those diseases, which in their most usual state are slight, and claim a higher place in the scale, are sometimes more, sometimes most, violent; and those, that in their most common state are severe, such as the gout of weakened per-

sons, the pestilential fevers, and the plague itself, sometimes proceed with the greatest gentleness (*a*).

DVII. The affections of parts, which often accompany those diseases, such as ulcer, tumor, encreased excretion, bleeding discharge, inflammation, spasm, convulsion, point out indeed some degree of debility *as their cause*, but in such sort that the same degree may happen without them. Hence, because it is the influence of debility that is fundamentally regarded in this scale; with the diseases, that are often conjoined with these affections, others, without them, as hysteria and the cramp are blended; and, with the cases that are accompanied with spasm and convulsion, dropy is conjoined, by keeping to the idea of an equal degree of debility; *and all* this without any regard to remarkable symptoms, but keeping the degree of debility only in view. Neither is the violent cholera kept back from its place among fevers, which last are distinguished by failure in the intellect and affections of the head, because it shews a degree of debility equal to the febrile. The idea in proportioning this division is to show,

(*a*) See par. CCCCL.

that true morbid energy does not consist in an affection of any parts, but of the whole body ; and that the *restoration of health* is not to be attempted by a change of *the state of parts* only, but, *without excluding that*, by a change of the state of the whole system.

Of Leanness.

DVIII. Leanness is an *asthenia*, less discernible in the other functions, but evident from the weakness of the digestive function ; in consequence of which, the system, though receiving proper aliment, does not become plump.

DIX. Since the cause of this disease is debility, both in the rest of the system, and in the stomach and other organs of digestion ; it thence *follows*, that the general indication for the cure of it, should be chiefly directed to the most languid part, that is, the organs of digestion and the perspiratory vessels. More nourishing food, therefore, should be used, less labour undertaken, and moisture on the surface, or too free perspiration, should be checked by more rest of body, by proper gestation, and rubefaction, and a plan, quite

contrary to that which is suited to the cure of obesity should be pursued.

Of Restless Watching.

DX. In the *asthenia* called *inquietudo*, or restless watching, the other functions are under some degree of languor, and the patient is affected with a constant necessity to change his posture, and toss about his limbs without being able to fall asleep.

DXI. As the cause in this case, in the same manner as in every other general disease, is universal over the system; so it affects the organs of voluntary motion, and the brain in particular, with the inequality *so often* formerly mentioned (*b*): Consequently, *to remove the disease*, ultimate excess in either mental labour, or exertion in any passion, as well as the opposite extreme of deficiency *in either*, should be avoided; and that stimulus of both, which is agreeable, ultimately excessive corporeal labour when it has proved hurtful, as well as deficient when it has had a concern in the cause, should be guarded

(*b*) See par. XLIX.

against; and the proper *medium betwixt the extremes of excessive activity and indolence* restored: Or the disease should be repelled by wine, and the other stimuli have, each its proportion, in the cure.

Of the Scabby Eruption.

DXII. In the scabby eruption, the face is pale, the skin discoloured, dry, lank, and variously disfigured with pustles; there is a lowness of spirits, and the functions of the body weak and sluggish.

DXIII. In this case, while the debility is universal, there is a prevalence of it in the perspiratory vessels. And, therefore, the chief parts of cure are, together with the remedies, *the operation of which is directed to the whole system*, such as nourishing food, strong drink, to support the perspiration by its respective remedies; to bathe the surface of the body in tepid water, to render it accessible to air, to order clean linen for the patient, and every thing clean about his cloaths.

Of the Gentle Diabetes.

DXIV. In that asthma, which is named the gentle diabetes, there is an excess in the quantity of urine discharged, but the profusion is not immoderate as in the most violent case of the same name. The organ of respiration labours under the same weakness and sluggishness, as in the scabby eruption.

DXV. To remove this affection much more frequent than it has been hitherto believed, the system should be stimulated by food (*c*), by strong drink (*d*), and by proper exercise (*e*), such as is neither immoderately excessive, and therefore debilitating, nor deficient in degree, and therefore, not supplying enough of stimulus: And, above all things, the perspiration should be sustained. The contrivances for checking the flow of urine, which have no existence, are to be passed from.

(*c*) See par. CCLXVI.

(*d*) See CCLXVIII.

(*e*) CCLXX.

Of the Rickets.

DXVI. The rickets is an asthma; to the general symptoms of which are added an unusual bulk of the head, especially the fore part of it, and likewise of the knees and abdomen; a flatness of the ribs and meagerness.

DXVII. The rickets is a disease of children, chiefly arising from uncleanness, want of dandling or exercise, cold, either without moisture or with it, food not giving sufficient nourishment, and bad air.

DXVIII. For its cure the common asthenic indication must be employed; remedies, of an opposite nature to the hurtful powers that excite the disease, must be looked out for; the surface of the body should be kept clean (*f*), the perspiration should be carefully restored by the stimulus of pure air and of heat; the child should be more carefully dandled, and kept much in the open air, animal food should be administered, vegetable withheld, and strong drink allowed (*g*).

(*f*) See DXIII.

(*g*) See CCXCV. CCCIII.

Of Retarded Menstruation.

DXIX. Retarded menstruation is also an asthma: In which, besides this discharge not making its appearance at that time of life, when it should, other evidences of debility, such as a slender make of body, weakness, laxity of habit, want of appetite, or a craving for things not alimentary, paleness of the skin, and similar symptoms, appear.

Of Impaired Menstruation.

DXX. Impaired menstruation is that state of asthma; in which after it has appeared, and the flow continued for some time, the discharge is made in too sparing quantity, or after too long intervals of time, with other signs of weakness accompanying it.

Of the Suppression of Menstruation.

DXXI. Suppression of menstruation is that degree of asthma, in which the discharge is totally stopt at any period betwixt their natural commencement

commencement and the time when, in the course of nature, they cease altogether.

DXXII. An enquiry must be made into the cause of natural menstruation, before *it would be proper to enter upon* that of the retardation, or deficiency, of the discharge in any of its degrees.

Of the Cause of Menstruation.

DXXIII. The cause of menstruation is a conformation of the vessels that pour out the blood *in this discharge*, taking place at a certain time of life, that is, about the age of puberty, and a stimulant energy in women, more powerful than in the females *of the other species of animals*.

DXXIV. Of other animals there are very few, the females of which undergo any sort of menstruation out of the venereal orgasm.

DXXV. As all the vessels are gradually unfolded in the course of the growth of the body, so the same thing happens to the genital and uterine vessels, but last of all to these. The ends of the latter, terminating, on the sides of the womb about the age of puberty, are at last so very much expanded, as now to
transmit

transmit first the serous part of the blood, and then, after an effort kept up for some time, pass to formal blood.

DXXVI. At this time of life a great change over the whole system takes place. Now the desire for coition, a stimulus, never experienced before, produces a commotion over the whole body; and, in preference to other parts, in the genitals of both sexes, in the female, over the whole region of the ovaria, womb, and vagina: By this stimulus, the uterus, its seat, being nearly incessantly solicited, is the more powerfully affected, the more there is of excitability, hitherto acted upon by no such stimulus, existing in the system. Hence, among other organs, the muscular fibres of the next vessels, as well as the nerves interwoven with them, undergo the highest degree of excitement: This excitement, encreasing over the whole system, again encreases that in the uterus: The mutual contact of the sexes, whether in kissing, in shaking hands, or otherwise, fires both sets of genitals, and the uterus in a remarkable manner; but the actual embrace produces the highest degree of that effect. The remembrance of each embrace remains, renews the
dear

dear idea of the delightful scene, and continues more or less to excite the uterus.

-DXXVII. This new affection is further cherished and nourished by every stimulus that is usually applied to the system: Hence, in the absence, in the presence, of the beloved object, at all times generally, scarce with the exception of *that which passes in dreaming*, a stimulus so steady, and the more powerful, that its novelty implies, that the excitability in this case is entire, rouses the fibres of the vessels, already sufficiently unfolded, to violent contractions. The blood is carried into the region of the uterus with the greatest rapidity, a rapidity momentarily increased, in proportion as the blood, by powerfully distending the vessels, and agitating them by its impetuous flow, stimulates the fibres more and more, and thereby increases the activity by which it is driven on. This is the first cause of menstruation: In that way, the two circumstances, a sufficient enlargement of the diameters of the vessels, and the stimulus acting more powerfully, from its novelty, upon the unwasted excitability (*b*), are sufficient for the whole business.

(*b*) See DXXIII.

DXXVIII.

DXXVIII. This state is not inconsistent with other states of the body, but bears an analogy to some well known ones: Accordingly, different vessels, from the *mere* difference of their diameters, are subservient to different purposes: The perspiratory vessels are destined to the transmission of a vapour, the excretory vessels of the alimentary canal to that of a thin fluid, the renal vessels to that of a grosser one; so as to take off our surprise at finding vessels fitted, by their degree of diameter, for the purpose of transmitting red blood.

DXXIX. The reason that the females of other animals do not menstruate but in their orgasm, and not at other times, is, that it is only at certain times that they are exposed to that energy of stimulus which produces menstruation.

DXXX. How much is owing to the stimulus just now mentioned (*i*), in the production of menstruation, is further evident from the following chain of facts: Which are, that, the less addicted to love women are, the less they menstruate; the more they give way to that passion, the freer do they experience this

(*i*) See DXXIII. DXXVI.

discharge

discharge within certain boundaries; that, before puberty, and after the time of life when menstruation ceases (which are the two periods, at which the fitness for effective love has not yet commenced, or is now passed,) the menstrual discharge is constantly wanting; that the privation of enjoyment, which, by *its* debilitating effect, produces chlorosis (*k*) and other similar diseases, is remarkable for bringing on a menorrhœa, or a retention of menstruation; and, finally, that girls, who are of a forward growth, of great strength, and large limbs, and consequently sooner ripe for love, are *also* more early in menstruation; while those, who are weakly, puny, and of a small size, and, consequently, later in attaining to the period of puberty, are proportionally late in attaining the first menstrual discharge. Lastly, if, like all the other functions, that of love is limited at the same time by its duration and degree; and if, as the commencement of the love embraces is more or less early, it is proportionally more early or late in coming to its final termination, and if the duration of menstruation does not usually exceed that period; that fact also, *which it certainly is*, added to those above, gives weight to our conclusion, and

lxxxix. (*k*) or the green sickness.

shows,

shows, in a clearer point of view, how much menstruation depends upon the venereal emotion. It is to be asserted, therefore, again (*k*), that, besides the conformation of the vessels, suited to *the function of* menstruation, and the stimulus which has been mentioned (*k*), there is occasion for no other *circumstance to explain* either the commencement, establishment, or continuation, of the menstrual discharge.

DXXXI. The cause of full menstruation, and that of a moderate degree of it, happening within the boundaries of health, is the same, only differing in degree; the degree of the latter being smaller, and that of the former greater.

DXXXII. And, as the stimuli, mentioned above, explain, why women menstruate more than the females of other animals; so their immoderate operation upon women serves to show, why *their effect*, the menstrual discharge, becomes greater than natural (*l*).

(*k*) DXXIII. DXXVI.

(*l*) Women menstruate more than other females, because they are subjected to a higher degree of the stimulus, which is its cause; and such women as are exposed to more of the same stimulus than others, will also experience more of the effect, precisely upon that same principle.

DXXXIII.

DXXXIII. The stimuli that produce abundant menstruation, short of morbid state, are unchaste ideas, and a high energy of passion. In this way, the influence of reading to one's self, or to others, of conversation, of pictures, contrived to kindle up lustful appetite, and the uncovering of parts that modesty conceals, which all produce a lively impression on the imagination of the thing so much desired; can be indistinctly felt by none perhaps but eunuchs. The same is the effect of nourishing food, and generous drink, and high seasoning; and hence the proverb, without meat and drink love starves: Likewise, that degree of exercise, or *even* labour, that does not prove fatiguing, but that keeps within the boundary of stimulant operation; as also an abundance of blood, both from that circumstance and from rich diet; lastly, frequent and ardent dalliance, or *inconcessa hujus imitationis*; all these, encrease the menstrual discharge, in proportion to the high degree of their stimulus, but still do not carry their effect to morbid excess.

DXXXIV. The same conclusion applies to the effect of these stimuli, which was formerly applied to an over-proportion of blood
3 producing

producing sthenic diathesis : For the ultimate end of all the stimuli, that produce excessive menstruation, is such, that, if excessive menstruation and an encrease of love be the consequence of the excess of the stimuli, one or other of the following must be the effect ; that is, it will either be such as remains within the latitude of health, or such, as first produces sthenic diathesis, and then, in a higher degree of it, runs rapidly into indirect debility.

DXXXV. That that is the fact, is proved by the hurtful powers that produce excessive and morbid menstruation ; and by remedies, that are stimulant and suited to fill the vessels, removing the disease according to our late discovery ; and also by the unfortunate effect of the debilitating evacuant plan of cure in the same diseases.

DXXXVI. As it is stimulant operation that produces both proper menstruation and that which goes to a little excess ; so, when once menstruation is established, the conformation and stimulus, that have been mentioned, remaining, are sufficient to support it. The same operation is renewed during every interval of menstruation : The stimulus acts and quickens the motion of the blood in every part,

part, but chiefly in that where it is most powerful and most required, that is, in the region of the womb : The blood thrown into quick motion, and rushing with a more rapid flow, encreases its cause, the stimulus: And, as this mutual stimulus continues incessantly to affect the women through the whole interval, when they are allowed scope of love; the uterine vessels are gradually unfolded, till at last, within three weeks, or a lunar month, they are opened to their ultimate extremities : And, when the fluid, first serous for a little, and afterwards sanguine, and afterwards serous again for a little, has flowed one, two, or three days, in healthy persons, the vessels are at last shut up.

DXXXVII. During the whole time of this process, the more excitability there is, and consequently at the beginning of each menstrual effort, the more violently the stimulus acts, and produces proportionally more excitement: And it has, from this time, always less and less effect to the end, in proportion as the excitability is more wasted; though, till the excitability, in so far as it has a relation to the stimulus, is altogether exhausted, the stimulus always adds something to the sum of excite-

ment (*m*), though constantly less and less. The same is the explanation of the operation of food, of drink, and of all the exciting powers.

DXXXVIII. As what has been said of the stimulus, productive of menstruation, is conformable to the effects of all the other stimuli; the same is its conformity to the whole sum of menstrual effect from the beginning to the end of the process. Thus, in the beginning of that long period, the force of stimulus is far the greatest, upon account of its novelty, and the unwaisted state of excitability that relates to it. At this period, above all others, love in persons in health is exquisite; and, in consequence of the stimulus which excites it, menstruation, when once established, is most exactly performed; that is, it does not, either from deficiency or excess, deviate into morbid state.

DXXXIX. But after the beginning of this function, and when now the office of menstruation is established; because in this, as well as every other function, the excitability is gradually diminished in the progress of life, the stimulant power also has gradually less,

(*m*) See XXXVI.

and,

and, at last, no effect: Consequently, in the same gradual way, the power of love in women, and, in proportion, that of menstruation, is diminished, and at last altogether extinguished.

DXL. While both the faculties, that of love as well as that of menstruation, in this way decrease from the beginning to the end; so, menstruation is often interrupted, in pregnancy, in suckling, in the diminution or suppression of menstruation. This interruption in the two former is natural, and suitable to health; *but* in the diminution or suppression of the menstrual evacuation, it becomes morbid.

DXLI. Since the stimulus with the conformation of the vessels is the cause of menstruation, and the latter depends upon the former; so again the defect of the stimulus, and, therefore, of the conformation, produces both the retardation, diminution, and, at last, the complete suppression of the discharge.

DXLII. Whether ever the defect of menstruation, like that of perspiration, or of an internal excretion, as that in the fauces and alimentary canal, is sometimes to be imputed to sthenic diathesis, is uncertain, for this reason; that, while the diameters of the small

vessels on the skin and in the intestines are more nearly allied to such a contraction for a reason *formerly* assigned (*n*) ; so great a force of excitement, so high a degree of sthenic diathesis, as would be sufficient to shut up vessels destined to the transmission of blood, is not easy to be conceived. And the doubt is further encreased by *a certain fact ; which is*, that both in the retardation of the menstrua, and in all the degrees of their diminution to their total suppression, when local affection is out of the question, there are evident proofs of a debilitating cause.

DXLIII. To ascertain that fact, which is of the greatest consequence for this reason, that it directly interests the method of cure, and, if not explained, would leave a gap in our principles ; *we have to observe*, that, as some men, in consequence of the stimulus of excessive love, in the case of a most beautiful woman being the subject of it, have, by means of sthenic diathesis, been so inflamed as to fall into a temporary fit of impotence, and been cured by bleeding ; so, besides that

(*n*) LVII. LXII. CXII. CXIII.

that

that is a rare fact (*o*), it is not very probable, that the patulous uterine vessels can be so contracted in their diameters, as to be incapable of transmitting their fluid. Nay facts contradict it: The retardation or deficiency of menstruation receive a temporary alleviation from the debilitating plan of cure; but the discharge is not usually also brought back, on the contrary it is more kept off: But allowing an over-proportion of blood and an excess of stimulus to be the cause of the first deficiency of menstruation, after it has been removed by bleeding and the rest of the debilitating plan of cure, can it again be the cause of a disease, which resists a degree of evacuant and debilitating plan of cure, that would cure ten peripneumonies? And since any stimulus, as well as *that of* an over-proportion of blood, may, from its excessive force, go into indirect debility; why may not the same thing happen in a disappointment in love, and first deficiency of menstruation; and, in both cases, atony, ushering in manifest debility, and not excess of tone, be the cause? As peripneumony, where the over-proportion of blood and sthe-

(*o*) I remember one instance in Dr. Whyte, and I think I have only heard of another.

nic diathesis is by far the greatest *that ever happens*, in consequence of indirect debility passes into hydrothorax; why may not a similar cause in this case produce a similar effect?

DXLIV. The cause, then, of deficient menstruation, whether partial or complete, is a languid excitement over the whole body, especially in the uterus, from a deficiency of the stimulus of love (*p*), and of all those stimuli that support it (*q*), and from a penury, or under-proportion of blood.

DXLV. That that is the fact, is proved by the hurtful powers mentioned in the retardation of menstruation, and other debilitating ones in every deficiency of that discharge, producing each disease; it is proved by the stimulant and filling plan of cure removing it, and also by the hurtful effect of the debilitating plan of cure (*r*).

DXLVI. The remedies for the cure of retarded menstruation are, rich food, generous drink, gestation, exercise accommodated to the strength, pediluvium and semicupium, or

(*p*) DXXIII. DXXVI. DXXIX.

(*q*) DXXVI. DXXVII. DXXXII. DXXXVII.

(*r*) DXXXV.

the warm bath of the under-extremities, and gratification in love (s).

DXLVII. The same remedies, are required for the suppression, and the same, but inferior in their degree of force, for the diminution of menstruation: When there is an unusual force of the disease, either in degree or duration, we must have recourse to the assistance of the diffusible stimuli.

Of Menorrhæa, or the excessive Discharge of Menstruation.

DXLVIII. Menorrhæa is an effusion of blood from the uterus, or an over-copious menstruation, or too long a continuance of it in a more moderate degree of the excess, accompanied by all the symptoms of asthenia.

DXLIX. This disease is occasioned not by an over-proportion of blood, not by a vigorous state of body, but by an under-proportion of the former, and an exhaustion of the latter. The hurtful powers, therefore, that produce it, are food not nourishing enough, or too small a proportion of what is so,

(s) DXXVI.

watery drink, or that over-proportion of pure strong drink that produces indirect debility, excessive heat, or cold not prevented from its debilitating operation by any stimulus, and falacity.

DL. Its remedies are the reverse of the hurtful powers ; rich food, generous strong drink, heat acting within its stimulant range, cold kept from direct debility by the stimulus of heat and other stimuli, and gratification in love.

DLI. The effect of the hurtful powers and remedies of which we have spoken, that of the former in producing, and that of the latter in removing, the disease, and the failure in success of the debilitating plan of cure, all confirm the fact.

Of Epistaxis, or bleeding from the Nose.

DLII. Epistaxis is an asthenia ; which, besides the general symptoms of the latter, is distinguished by bleeding from the nose, without any force behind, an affection troublesome at any age, but particularly to young persons under a rapid growth, and to enfeebled old age.

Of

Of Hæmorrhoids.

DLIII. The characteristic of hæmorrhoids, or the piles, added to other signs of asthenia, is a flow of blood from the anus, or the parts around it.

DLIV. The same thing, nearly, that has been said of menorrhœa, is to be said of the hurtful powers and remedies of this disease.

DLV. The cause of the piles is manifest, from the hurtful powers producing it, the remedies removing it, and the unhappy effect of the common asthenic plan of cure; that is to say, it is debility of the whole body, from the deficiency of other stimuli, and chiefly that of the blood (*t*): Which debility, while it relaxes all the vessels, and impairs their tone, produces that effect, in a special manner, upon the labouring vessels. The reason of which is, that, in consequence of the inequality so often mentioned, the chief prevalence of the cause operates in the seat of the urgent symptom (*u*). Nor is it to be thought wonderful,

(*t*) See par. DXLIX.

(*u*) See XLIX. L. LI.

that the blood should flow through the vessels of the uterus that are patulous, and in the habit of pouring out blood, through the pendulous hemorrhoidal vessels, and those of the nose, which are delicate, and weakly supported, in preference to others. In this case plethora, which has no existence (x), is equally unnecessary to our reasoning (y).

Of Thirst, Vomiting and Indigestion, as well as the the Kindred Diseases of the Alimentary Canal.

DLVI. There is a very frequently occurring affection, beginning with thirst and proceeding to vomiting (z). It often proceeds no farther than those symptoms; it oftener ushers in the most severe affections, such as sometimes dyspepsia, or indigestion, sometimes colic, sometimes the gout, sometimes proper fevers, and many other asthenic diseases. Its most frequent source by far is weakness, being the attendant sometimes of too long suckling, sometimes of the diarrhœa incident to women

(x) See par. CXXXI. CXXXIV. and the addition.

(y) CCXXXII.

(z) CLIX. CLXXXV. CLXXXVI. and CLXXXVII.

waisted with a long course both of that and repeated pregnancies.

DLVII. There are two causes of as many affections which have got only one name between them, that of thirst: The one is sthenic, the other asthenic (*a*). The former arises from the stimulus of salt, of rich and plentiful meals, of heat and labour, and some others; never ending in vomiting till the sthenic state is over, which is seldom. Its cure, with which we have here no concern, is cold water and the several debilitating powers.

DLVIII. The asthenic thirst, which is our present subject, depends always on pure debility, sometimes indirect, sometimes direct (*b*). Its tendency is always to stomach sickness, and, as that encreases, to vomiting (*c*); and when the vomiting becomes any way considerable, the consequence is that most acute pain, which a cramp in the stomach produces (*d*), and the other affection formerly explained (*e*). This progress is spontaneous, direct, and for the most part rapid.

(*a*) Ibid.

(*b*) CLXXXV.

(*c*) See CLXXXVII. CLXXXVIII.

(*d*) See par. CLXXXIX.

(*e*) CXC. to CXCV. and from that to CXCVIII.

DLIX.

DLIX. The hurtful powers here are all debilitating. The indirectly debilitating hurtful powers are, debauch in eating and drinking (*f*), drunkenness, extreme fatigue, ultimately excessive heat (*g*), violent passions (*b*), excessive exercise of the intellectual faculty (*i*), debilitating food (*k*), an over-proportion of blood now converted into an under-proportion, together with the conversion of the sthenic diathesis that attended the former, into the asthenic, the inseparable attendant on the latter. The following powers act by a directly debilitating operation; cold corrected by no stimulus (*l*), cold drink, vegetable food (*m*), penury of blood (*n*), of other fluids (*o*), want of pure air (*p*), anxiety, grief, fear (*q*), and, in fine, that weakness of the system, which

(*f*) CXXVIII. CXXX.

(*g*) CXV.

(*b*) CXLI.

(*i*) CXXXIX.

(*k*) CXXVIII.

(*l*) CXXII.

(*m*) CXXVIII.

(*n*) CXXXIV.

(*o*) CXXXVII.

(*p*) CXLVI.

(*q*) CXLII.

arises from all those. The affection is often of a mixt origin, from a mixture of both these sorts of hurtful powers: For, as direct debility always increases the indirect, so does the latter the former, both in this and all cases (*r*).

DLX. A corruption of the common mass of fluids, whether it be called acrimony, or putrefaction, has no concern in the cause; because, while life remains, and the action of the vessels upon their respective fluids continues, such a faulty state of the fluids cannot make its havock over such an extent of the system, that being only the effect of a cessation of motion of the fluids under heat; nor can it happen, but in the extreme vessels and excretory ducts, which, by their atony, do occasion such a cessation of motion, and likewise in the alimentary canal.

DLXI. The cause of this thirst is the common one of every asthenia, but predominant in the throat and stomach, upon account of the atony of the salivary, and other excretory ducts (*s*).

(*r*) XLVII. LXXI.

(*s*) CLXXXVI. CLXXXVII.

DLXII.

DLXII. The remedies are also the common ones of every asthma, to be accommodated to the degree of debility in the cause. In a slighter degree of thirst a glass or two of brandy, or of any similar spirit, or, which is a better rule, given till the complaint is removed, is sufficient. It should be either pure, or diluted with a very little hot water (*t*). That should be followed by eating some animal food (*u*); and it should afterwards be supported by other stimulants taken moderately, and in the degree that suits good health. After which the proper practice is, to proceed to the use of the permanent stimuli.

DLXIII. When the thirst, not quenched by these means, proceeds directly to vomiting, and when, by and by, an excruciating pain supervenes upon the vomiting; which, excepting the pain, is an affection, that, toge-

(*t*) The addition of cold water counteracts, that of hot co-operates with, the effect, which has been ascertained in a thousand trials.

(*u*) When the thirst was but just coming on, and not yet established, I have found a hearty breakfast carry it off. But when it is comes to a head, the mixture of stomach sickness, that now begins to take place with it, renders eating impracticable.

ther with the symptoms that have been mentioned (α), should receive the appellation

Of Dyspepsanodyne, or Indigestion without Pain :

And when, besides the pain of the stomach, now induced, the affection going downward to the intestines, sometimes produces a loose, sometimes a bound, belly; at other times only a loose belly, and at others only a bound one; which is an affection, when unaccompanied by costiveness that is distinguished by the title

Of Diarrhæa :

DLXIV. And, when accompanied with costiveness, is entitled to the denomination

Of Colicanodyne, or Colic without Pain :

DLXV. In all those cases recourse must be had to a larger dose of the drink: And, when that does not succeed to our wish, we

(α) From DLVI. to DLXII.

must

must next fly to opium, and other more diffusible stimuli, if they are to be found : When, by these, relief is procured, rich and pure soups, without grease, should, from time to time, be poured in, and the canal carefully bathed all over with them. After which, the other stimulants should be added ; in the use of which, a straight direction between direct and indirect debility should be held, without the least deviation towards either : And our efforts must always be continued till the disease is radically removed.

DLXVI. The necessity for this direction in the cure is so much the greater ; that, by neglecting it, or depending upon the common purgative debilitating plan, the consequence is, that often a proper general disease degenerates into a local affection. To proceed to the consideration

Of the Kindred Diseases of the Alimentary Canal.

DLXVII. Among them, besides those that have been mentioned above (y), there are not

(y) From DLVI. to DLXVI,

wanting,

wanting others, which, when compared with them in the similitude and nature of the cure, absolutely claim this place in the scale.

Of the Diseases of Children.

DLXVIII. The diseases of children are, dryness of the skin, sudden flaver, or salivation of short continuance; a similar rejection of milk, without effort (z); green scouring; at other times costiveness; both commonly with gripes; the usual mark of which is, a pulling up of their knees towards their stomach, with very severe crying; unequal heat; a little more severe than those are the two following cases, the one of which has the name

Of Worms.

DLXIX. Which are distinguished by a thickening of the columna nasi; by a custom of picking the nostrils; by loss of complexion; by paleness of the face and of the rest of the skin; by a swelling of the belly; and, lastly, by the discharge of worms by stool.

(z) See CCCCIII.

The most distinct symptoms of the other affection, or

Of Tabes, or the general Wasting of the Body,

DLXX. Are meagerness all over the body, an unusual bulk of the abdomen, almost constant watching, such a weak, distressed, assiduous, and hoarse manner of crying, as excites tenderness and compassion.

DLXXI. The hurtful powers, producing all those affections, are in common to them with every asthenia; that is, they are every thing that has an effect of debilitating the whole system, and especially the alimentary canal: Such as, at this age, are, milk not nourishing enough, and at the same time acedcent and flatulent; want of food, or made of watery matter and bread; cold, and moisture, the latter encreasing the effect of the former; habitual vomiting and purging; too little dandling; mistiming sleep, and meals, and every part of management; nastiness; impure air; a neglect of natural likings and dislikings.

(a) It is that longitudinal depression which runs down from the partition of the nostrils perpendicular to the upper-lip.

DLXXII.

DLXXII. The remedies are the converse of all those, nourishing exciting milk; three or four meals a day, consisting chiefly of warm milk, pure animal soups, not weak, with a mixture of flower or bread of the same kind; heat without being carried so far as to produce sweat, or too much redness, and free from moisture; laying aside every sort of evacuation; a great deal of dandling and gestation; a proper timing of sleep, of food, and of every part of management of these delicate systems; cleanliness; tepid bathing in cold weather, and cold bathing in warm; and pure air, being out in the fields as often as possible in all but moist weather; such a judicious attention to desires and propensities as not to neglect scratching any part that itches (*b*).

DLXXIII. These directions suit the gentler cases *under consideration*. To remove the more violent, while those also are not by any means to be neglected; at the same time others are to be subjoined. When the green scourings, great looseness, and boundness of belly, are vexations; recourse must be had to pure wine, spirits, more or less diluted as the occasion

(*b*) See above DXVIII.

may require, or if their should be need, not diluted at all: More of the soup that has been mentioned, and also of a richer kind.

DLXXIV. If those should not succeed to the *physicians* mind, which will seldom be the case; in the same affections, and more certainly in worms, and still more certainly in the tabes, or general consumption, with the remedies that have been spoken of the more diffusible stimuli of opium and musk should be alternated. Both sorts of remedies (c), should be so accommodated to the violence of the symptoms, as not to be dropped till the whole morbid tumult is allayed, and the healthy state replaced; which will, upon trial, be found more practicable, than has yet been imagined from the employment hitherto of the contrary plan of cure, to the great comfort of mankind in their sufferings.

DLXXV. From what has been said it will appear, that these affections of children, *all* flow from the same cause, are removed *all* upon the same indication of cure, as any other asthenia, or disease of debility, that has either yet been, or is to be, mentioned in this work.

(c) The durable and diffusible.

The unhappy termination of them hitherto, is to be imputed not to their cause, but to the depravity of the common method employed for their cure (*d*): Nay, though they do degenerate into local affections, as in the instance of the tabes, or general consumption, ending in an obstruction of the misentery; in that of cholic at every age, terminating in an inflammation, tumour, or complication of the intestines; and in those of both cholic and long-neglected diarrhoea, running into a gangrene in the same part; that is a misfortune that never happens, when a proper method of cure is early enough used to remove the primary disease: And, on the contrary, it most commonly arises from the perversity of of that plan of cure, or the neglect of this, which is the proper one. To the same kindred

(*d*) I cannot help repeating again, because the importance of the subject calls upon me to do so; that the practice of the new plan of cure, in all the diseases of children, as well as in the others lately spoken of, has ever succeeded in my hands, as well as in those of my pupils, to a miracle. I cannot say that ever I met with an instance where it could be said to have failed. Let then who will compare that account with the known mortality that is every day the result of any other practice yet thought of in the profession.

diseases of the alimentary canal (*e*), further belong *the two following ones*, under the title

Of the gentle Dysentery and Cholera.

DLXXVI. To which, every thing that has been said of those kindred ones, will apply: Or, if there be occasion for any particular observation upon them, it will be taken up, after we come to treat of them in their more *severe and violent* state: Of a similar nature to all these, but of a degree so much higher, as to merit the next place in rank below them, and, *at the same time*, not unconnected with them, as having the seat of its predominant symptom in the same canal, is the disease to which I have given the name

Of Angina.

For the symptoms and method of cure of which turn back to number CCXXII. where it is introduced, in the explanation of asthenic symptoms.

(*e*) From DLXVI. to the present paragraph.

Of

Of Scurvy.

DLXXVII. Scurvy is an evident asthma: The principal symptoms of which are, want of appetite, loathing of food, laxity of the living solids considered as simple solids; an oozing of blood, both from other parts, and particularly from the gums; aversion to labour; low spirits, and a languor in all the functions.

DLXXVIII. The hurtful powers producing this disease, are the common asthenic ones, appearing in the following form; It is cold in this case, but conjoined with moisture in the northern seas, and, as *we may well suppose*, in the parts of the southern ocean of the same temperature, that generally produces the peculiar form of the disease. But with it all the other debilitating powers contribute their share: Such are, grief for the loss of liberty, relations, kindred, and friends; a horrid dislike to their present state of life; a longing desire for that which they have parted with; the awe which the severity of discipline keeps them in; *the effect of* a calm, where there is nothing to do, producing direct debility on

P 4

them;

them ; a storm, where they have to labour above their powers, *as certain a cause of indirect debility* ; their not having been allowed, till of late, fresh meat, which is the only nourishing and enervating (*f*) *form of it* ; their being kept upon salted and spoiled meat, and not even corrected by recent vegetable aliment, such as that is (*g*) ; watery or small drink ; the terror which the expectation of a battle at sea inspires.

DLXXIX. All those particulars prove, that scurvy is so far from being the effect of one or two hurtful powers, and from resting upon so narrow *a basis of the cause producing it*, as has hitherto been imagined ; that it is rooted in a multiplicity of debilitating powers, and is a real asthenia, *or universal disease of debility*,

DLXXX. And this fact is confirmed by both the true and false method *employed* for its cure : For, though nearly all the common powers concur in the production of scurvy ; if, however, it be considered, how easily, upon the removal of the hurtful powers, and the patient getting a shore, the disease is got

(*f*) See CXXIV.

(*g*) See CXXVIII.

under, by fresh meat, either with or without greens, by wine, gestation, and exercise, in fine, by the recovery of his usual manner of living; it will be impossible to entertain a doubt of its being both an asthenia, and by no means a violent one. The pretence of its cure being effected by greens, roots, four crout, and similar things, so much boasted of lately, which, without the remedies just now enumerated, could not fail, by their debilitating operation, to aggravate the disease, is derived from a noted blunder among physicians, by which they are led to overlook the most certain, simple, and evident facts, and take up, in place of them, the greatest falsehoods, or such facts as have a very narrow foundation in truth.

Of the gentle Hysteria.

DLXXXI. The gentle hysteria is a form of asthenia, of frequent occurrence among women, but very rarely happening to men; in which a noise is heard in the belly, and the patient has a sensation of a ball rolling within *the bowels*, rising up to the throat, and there threatening the patient with suffocation.

DLXXXII.

DLXXXII. The striking symptom in this disease is a spasm, not fixed in a part, but running the course *just now* described. The disease attacks in fits, for the most part leaving long intervals betwixt them, and often never recurring more than once or twice.

DLXXXIII. The fits are soon removed by small doses of opium, repeated at short intervals: The intervals should be secured from danger by full diet, and a moderate and naturally stimulant management.

Of Rheumatgia, or the Chronic Rheumatism.

DLXXXIV. Rheumatgia is an asthenia, not so much a sequel of rheumatism when left to proceed in its own spontaneous course, as of the profusion of blood and of other fluids employed for the cure of it, and of too debilitating a cure; with a change of the sthenic diathesis and the inflammation, which is a part of that, into the asthenic diathesis and inflammation. Paleness of the skin takes the place of complexion: The appetite is diminished, the involuntary motions are impaired, debility and torpor prevail over all. So far the disease is understood to be chronic.

As

As in rheumatism, the joints are pained and inflamed: As that, which has been assigned, is the most frequent cause of rheumatism, so it sometimes arises not from a sthenic origin, and an excess in the means of reducing that.

CLXXXV. The cause of the disease is the usual one of any asthenia, predominant in the moving fibres of the muscles, situated below the skin over the whole surface of the body.

DLXXXVI. Its worst morbid powers are, penury of blood, cold, especially with the addition of moisture, impure air, and besides these, as many of the other powers that act by a debilitating operation as happen to be applied, contribute, in proportion to the degree in which they are applied to the morbid effect. Of these excessive indolence and the reverse are particularly hurtful.

DLXXXVII. As all stimulants contribute to the restoration of the healthy state; so the most powerful of them in this case is nourishing food, friction, gestation, wine, taken in moderation, exercise, rather frequent than violent, and being as much as possible in the open air. If it is an acknowledged fact, that rheumatism is one of the reproaches of physicians,

ficians, it is more so than has been hitherto interstood ; it being an asthenic disease, while they at all times made use of the same kind of cure, as if it had been the most sthenic, or even upon the whole more debilitating (*b*).

Of the Asthenic Cough.

DLXXXVIII. The asthenic cough is an asthenia, which with the constant symptoms of the latter, depends upon a frequent expectoration, that the cough excites ; affecting every age, which has been under the influence of either direct, or indirect debility, and therefore old age, which is unavoidably the prey of indirect debility.

DLXXXIX. As consisting in indirect debility, it is the effect of an excessive violence of all stimuli that have been applied either for a short time, or for a great part

(*b*) If they should pretend to say that their bleeding and other evacuations were more moderate than in rheumatism ; the answer is, that they were not so profuse at any given time : But, considering the length of time, that rheumatism draws out into, the frequent, and almost constant evacuations, conjoined with every species of inanition, made the debilitating practice upon the whole far exceed that used in the sthenic case. No wonder, then, that much mischief was done.

of

of life, their operation coming to the same amount, that of the former from its degree, and that of the latter from its long continuance (*i*). In so far as its cause is direct debility, a deficiency of all the stimuli, leaving the excitability to be accumulated, allows this form of asthenia to happen from the spontaneous tendency of nature, of which life is only a forced state (*k*).

DXC. The cough, which depends upon indirect debility, is cured by reducing, the stimulus which occasioned it, gradually and cautiously to the proper and natural degree. And when it originates from ~~indirect~~ direct debility, the encrease of the stimulus, *the want of which occasioned the disease*, till the degree of excitement, which constitutes health is replaced, effects the cure.

DXCI. Such is the nature of direct and indirect debility; that if the remedies of the former be pushed beyond the boundary, the

(*i*) See above XXIX. XXX. and CCCC.

(*k*) So great is nature's tendency to that particular encrease of excretion, which forms the matter of expectoration in this disease, that every case of death from disease is an instance of it. Hence the dead rattle in the throat is universally the expiring symptom. See LXXII. and CCCXXVI.

cough

cough appears again; and the same is the event of the same excess in the use of the remedies of the latter (1).

DXCII. Frequent and violent cough with copious expectoration has been always held for a sure mark of a vitiation or faulty state in the lungs. That faulty state was esteemed to be of a sthenic nature, and to give assurance of the presence sometimes of phthisipneumony, or consumption from an ulcer in the lungs, sometimes bastard peripneumony, sometimes of a burning inflammation in the alimentary canal. In the former case an ulcer, or, in their way of speaking, and what amounts to the same thing, tubercles were believed the cause of the disease; in the second case inflammation either in the intercostal muscles, or a different one from that, which in true peripneumony was, in their opinion, its primary cause, was considered as the cause; and in the last case, no one of them would have hesitated a moment to have ascribed the state of the bowels to the only inflammation they were acquainted with, that which re-

(1) See par. XXXIII. XXXIV. and XLIII. XXX. CXXXIV. with the addition, and especially CCXXXIII. to CCXXXVI.

quires bleeding and evacuation for its cure. And no other enquiry was made, but whether the matter that was spit up, was mucus or pus. To ascertain that premiums were proposed.

DXCIII. But, in fact, besides that no phthisipneumony, no bastard peripneumony, as they call it, no inflammation in the alimentary canal, was ever cured by antisthenic or debilitating remedies; and that, in the several trials that have yet been made, the first of these cases has been evidently assisted, nay frequently completely removed, and the two latter thoroughly cured in numberless instances, and in all in which it has been used by the sthenic, or stimulant plan of cure; I say, besides these large and comprehensive facts, so little signification is there, either in the quantity or appearance of the expectoration, that in certain fevers, in other diseases of debility, quite free of all local affection, and finally in this very cough of which we are speaking, there is often a more violent cough, and a greater expectoration of matter putting on every form and every appearance, than usually happens in a confirmed consumption, and where every hour is expected to be
the

the last. And yet the whole tumult, hitherto so alarming, could be stopt in a few hours, and quite cured in as many days.

DXCIV. And, who does not know, that there are many persons, who have an immoderate cough, and proportional expectoration for a whole and long life-time, whose lungs, however, are sound, and free from any organic taint? How often in phthisis pneumonia itself after finishing its course, and at last terminating in death, has the whole fabric of the lungs been found upon dissection as sound as ever happens in death from any cause(*m*)?

DXCV. The

(*m*) There are several cases upon record, of the lungs after death from a confirmed consumption, having been found perfectly sound. A most respectable pupil of mine went to Lisbon with a young gentleman of considerable rank in Scotland, under a confirmed consumption, whom he brought back perfectly freed from his disease. He also saved either two or three ladies, I am not just now sure which; equally given up upon the common practice. He happened to assert before the physician of the factory, that a person just dead of the same disease had no local affection in the lungs, and upon dissection it was found to be as he had said. I have restored many phthisis pneumoniae, but am obliged to own, that I have lost three, to whom I was called too late. Their loss, however, mortified

DXCV. The cause of cough has hitherto been unknown. To pass over the sthenic cough, with which we have nothing to do in this part of our subject (*n*); the cause of the asthenic is the same as that of any asthenia, but more vehement in the fountain of expectoration, to wit, the exhalant and mucus arteries, the secreted fluids of which, inspissated by stagnation *in the bronchia*, compose the matter to be expectorated.

1. *a. a.* The most powerful of the asthenic hurtful agents in exciting asthenic cough, is cold, just as heat has been demonstrated the most hurtful agent in catarrh (*o*). Nay, in the asthenic cough, such is the rage of cold, that the slightest breath of air reaching the body, excites a most prodigious tumult of coughing, and brings out the whole series of

mortified me, because there were many reasons for my setting my heart upon their cure. I also lost in Edinburgh the most amiable young man of that kingdom, after curing a prodigious hemorrhagy from his lungs. This was he whom my pupil two years before brought home safe from Lisbon. But I was prematurely dismissed in this, and counteracted, in the other cases.

(*n*) See CLX. CCXXXIII.

(*o*) See par. CCCCVII. to CCCCXII.

subsequent symptoms; and heating the body in the bed as soon allays the cough, prevents the threatening, and cures the urgent disturbances (*p*).

DXCVI. In this as well as the sthenic cough, it is the serous and mucus fluids that chiefly flow to the bronchia. Which bear their pressure for a little, till, distended by the load, they can bear it no longer. The disagreeableness of the stimulus excites a commotion in the excitability of the labouring part, and, therefore, over its whole seat, and rouses the excitement. A cough arises, and throws off its cause, the collected humours.

DXCVII. This disease is always to be treated for its cure, first with stimulant remedies, and then with such as also fill the vessels. If indirect debility has been the morbid power, still we must stimulate, but at first with a force of stimulus little less than that, which occasioned the disease, and then with still less; and, after changing, from time to time, the form of the stimulus, with less still; till we come down to the stimuli that are agreeable to nature, those that suit the most

(*p*) All from *α. α.* is an addition to the original.

perfect health (*q*). In that way is ebriety, in that way is every form of intemperance, to be treated. If direct debility has been the cause, the cure will be a good deal more easy: That is we must go on to stimulate more and more, till we get up to that point of excitement, to which we came down in *the case of* indirect debility. In this way is the first stage of phthisipneumony, as well as its middle course, and also bastard peripneumony, nay, most cases of the debility affecting young people, and the disease to which the name

Of Chincough

DXCVIII. Is given, to be encountered in practice. Chincough is attended by a contagious matter; which varies in its degree, but in such sort, however, that a sthenic plan of cure, adapted to the degree of the disease, for certain cures it. The change of climate or place is a tale, the practice of vomiting is death (*r*). And, since the disease is
an

(*q*) See par. CIII.

(*r*) Still to the old tune "cantilenam eandem canunt."
They confessed they knew nothing about this disease, yet
they

an asthma, vomiting, which is so very debilitating an agent, cannot fail to be of the highest detriment (s).

Of Cysterrhæa, or the Mucous Discharge from the Bladder of Urine.

DXCIX. Cysterrhæa is that mode of asthma; in which, to the general symptoms they prescribe change of air and place: If they knew nothing about the disease, how could they know what would be of service?—Others told them so. But why do they prescribe vomiting?—They heard that from their master's desk at school, and found, that the same authority, was the reason of others for doing the same thing: Why vomiting? For the same reason, and because a relique of the doctrine of morbid matter has run through all their systems. Hence in bleeding diseases, the universal rule has been to bleed; in vomiting to give emetics, in diarrhæa to give cathartics, in imitation, forsooth, of nature. The symptoms of disease have been mistaken for efforts of the constitution to remove the disease. It is now, however, proved, that there are no such efforts. Every symptom, and particularly every morbid evacuation, is to be stopt. The contrary practice is as good sense, as it would be to propose bringing on a dead rattle to cure the morbid one.

(s) See par. CXXXVII. and the addition in MS and CCXCIV.

of asthma, and the particular ones of asthenic cough, there is an addition of mucus, rendering the urine turbid, without any previous pain or symptom of internal local affection.

DC. In so far as this is a general affection, the laxity proportioned to the atony must be removed equally in it, as in other cases of encreased excretion; and particularly the stimuli of health must be accurately administered.

Of the Gout of stronger Persons.

DCI. The gout of stronger persons is a form of asthma; in which, after a long habit of luxury and indolence, and especially, when to those hurtful powers directly debilitating ones have been recently superadded, indigestion, or diarrhæa, or rather both conjoined, with manifest signs of a diminished perspiration, precede; then the lower extremities are affected with languor. Of the lesser joints, almost always the one or other foot is seized with an inflammation, which, if not resisted by a piece of art quite new, will prove most severe, most painful, and of short duration,

duration, comparatively to its state in that respect in the after part of the disease.

DCII. This disease may be called the indigestion or dyspepsia of the luxurious, that is, depending upon indirect debility; while dyspepsia may be denominated the same disease, that is, the gout of persons under direct debility, as having every symptom of the gout, except the inflammation (*t*). For, in diseases, so little is there in names, that not only those diseases, of which we have been just now treating, but likewise asthma, hysteria, the cholic, and most of the diseases, which

(*t*) There are very few persons, who at one time or another in their life have not experienced painful twitches in some part or other of one of their feet, especially when they happened to be in a state more languid and sluggish than ordinary. Every which case may be considered as a gout in miniature. But when the whole phenomena, except the inflammation, happen to any person, call it dyspepsia, or what you will; it is to all intents and purposes a gout. Indeed, from all that has been said through this work, general morbid state appears to be a very simple affair, being nothing but an encrease or diminution of the cause of the functions or powers of life, without any other difference, but that of the mere appearance of the symptoms to our senses, an appearance by which, when we look no further for information, we are also constantly deceived,

have

have taken their appellations from any remarkable disturbance of the alimentary canal, are equally prevented and cured by the same method of cure precisely. Which is indeed the reason why the gout has been ranked in the number of the diseases of the same canal.

DCIII. A taint transmitted from parents to their offspring, and celebrated under the appellation of hereditary, is a tale, or there is nothing in the fundamental part of this doctrine. The sons of the rich, who succeed to their fathers estate, succeed also to his gout: Those who are excluded from the former, are also from the latter, unless they bring it on by their own merit. Nay, if there be but only two diseases in the strict sense *of the word*, they must be either all, or none of them, hereditary. The former supposition makes the hurtful powers superfluous, which have been proved to be every thing *respecting disease*; and, as it is, therefore absurd, so the truth of the latter must be admitted. The stamina, or bulk of our simple solids, are so given in our first confirmation, that some persons are distinguished by a gross, others by a slender state *of the whole mass*. That variety of the stamina, if the exciting powers, upon

which the whole phenomena of the life depend, be properly directed, admits each its respective state of health; suited to its respective nature, and sufficiently commodious, if the excitement suited to each, from a proper direction of the stimuli *producing it*, be properly applied. Though Peter's father may have been affected with the gout, it does not follow that Peter must be affected; because, by a proper way of life, that is, by adapting his excitement to his stamina, he may have learned to evade his father's disease.

β. β. If the same person, who from his own fault and improper management, has fallen into the disease; afterwards, by a contrary management, and taking good care of himself, both prevents and removes the disease, as it has been lately discovered: What then is become of hereditary taint (*u*)?

Lastly, if the gout is the same disease as dyspepsy, arises from the same hurtful powers, is removed by the same remedies; and the only symptom, in which it can possibly be thought to differ, the inflammation, is only a slight part of the disease, depending upon the same

(*u*) All this, from β. β. is an addition to the Latin text in MS.

original cause, and ready to yield to the same remedies; what signify distinctions about either, that do not apply to both (x)? Nothing by them further is set forth, than, that a certain texture of stamina is favourable to certain forms of diseases, which (forms) are of no consequence, in such sort, that, when the excitement is adapted to the stamina, even those forms can be prevented or cured.

DCIV. The hurtful powers producing the gout are, first, indirectly debilitating, not effectual all of a sudden, nor commonly before the meridian of life, that is, before the thirty-fifth year of one's age. Rich food, too much ease, have a very great effect, drink has less. To that all that have a tendency, to wear out life, to consume the excitability, contribute. But the first fit scarce comes on till directly debilitating hurtful powers have

(x) If I have kept off my gout for seven years past, after having been subjected to the most severe rage of the disease, might not I, much more easily, have prevented it before? But, it may be said perhaps, that excruciating pain makes a great difference in the scale of comparison of any two diseases: The answer to that is, that since the pain is as easily removed as the other symptoms, the difference is removed, and the weights in the scale equalized.

been superadded to the indirect (*y*). The following are particularly hurtful, abstinence, vegetable food, the hurtful effect of which is in proportion to the embecility of the matter that composes it. The farinaceous substances, which are by no means safe (*z*), and less hurtful than roots, and these less so than greens (*a*); but fruits are the most hurtful of all (*b*).

(*y*) My gout came on at the thirty-sixth year, [after five or six month's low living: It returned not again till betwixt five or six years after, because all the intermediate time I had been well supported: And this second fit was ushered in with low living, immediately previous to it, for near the same length of time, as before the coming on of the first fit. Nay, no gout ever came on but in consequence of direct debility; the indirect has not so quick an effect in that respect; at the same time it has a tendency to be hurtful, and therefore should be avoided.

(*z*) A mess of porridge, a dish used in Scotland, with small beer poured upon it, and taken over-night, would bring on a fit of the gout next day.

(*a*) The juice of turnips, of cabbage, and even pease-pudding and pease-soup, which are commonly reckoned substantial dishes, have the same effect: When those substances, after being boiled, are used with a good solid meal of meat, I have always found them innocent. Green pease ate, with lamb or fowl, is both harmless and grateful.

(*b*) Apples and pears are such: But the cold fruits, as melons, cucumbers, are almost instantaneous in their hurtful effect.

Cold

Cold water, in the height of the diathesis, given to quench thirst, immediately produces nausea, vomiting, and other distressing symptoms of the stomach and of the rest of that canal, and hurries on a formal fit (*c*). The mixture of an acid with pure cold water encreases the hurtful effect. Of the strong drinks; those prepared from barley by fermentation, that is, the different ales and beers, all the white wines *in common use*, except Madeira and Canary; and among the red wines claret, indeed all the French wines, and punch with acid, all these are remarkably hurtful. And as indolence helps on with the first fit, so fatigue, especially that of walking, hurry on all future ones. Want of a sufficient quantity of blood is so hurtful at all times, that, though the theory of physicians led them to the notion that the disease depended on plethora and vigour, yet no body ever thought of taking blood (*d*). Vomitting is bad, and indeed one of the natural symptoms of a very bad state of the disease; but purging the belly

(*c*) See CLXXXIV. to CXC. to CCXXXVII.

(*d*) This is one of their many contradictions between theory and theory, and theory and practice.

is worse (*e*). Every evacuation has a similar bad effect, with this distinction, that the artificial are much more hurtful than the spontaneous.

DCV. One is to be excepted, that is, excess in venery, to which, though it be a spontaneous and natural, not an artificial, evacuation, gouty persons are so addicted, and so exceed others in power, that in the very middle of a very bad fit, they are not sparing of it. That effort at first is not perceived; but in the advance of age, and after many returns of the disease, it is felt at last with a vengeance (*f*). Great heat, by its indirectly debilitating operation, does some hurt (*g*), but great cold, by its direct debility, much more (*b*). Impurity of air

(*e*) At any time I can bring on a fit by a single dose of Glauber's salt, unless I happen to be very strong, and quite free of all diathesis.

(*f*) At an advanced period of age, in persons who had been vigorous, an unnatural power of execution sometimes, even in actual morbid state, will take place, so as that the person will be able to outdo all his former doings in that way. But it is a false power, it is a symptom of disease: It is like unnatural appetite for food amidst a weakness of the powers of digestion.

(*g*) CXV.

(*b*) CXVII.

is inimical (*i*), as well as an interruption in the train of thinking (*k*); but hard thinking is more hurtful. A deficiency in the stimulus of passion is a pretty considerable hurtful power (*l*): But a high intensity of it will convert this moderate degree of the gout into that highest degree of it, that attacks the head; lays a snare to life, and brings on certain death (*m*).

DCVI. Long sleep is bad (*n*), as producing direct debility, by deferring the re-application of the stimuli, which the watching state afford; but short sleep is much more hurtful, leaving behind it a degree of fatigue still remaining from *the effect* of the stimuli of the former day (*o*). Often, after the upper parts of the body have been recruited with enough of sleep, after getting up, the *podagric* feeling a state of languor in his lower extremities, and a demand for more sleep to them, is obliged to go to bed again, and give the

(*i*) CXLVI.

(*k*) CXXXIX.

(*l*) CXLI.

(*m*) Ibid.

(*n*) CCXLV.

(*o*) See Part II. Chap. VII. CCXXXVII.

unre-

unrecruited limbs their respective share of sleep. When a person is torpid from short sleep, how great is the luxury to cherish again by the heat of the bed-clothes all the parts that have been exposed to cold, that is, the whole surface of the body and thighs, but especially the legs and feet, which last, during the presence of the fit, is the seat of the inflammation; and, how delightful *in that way*, to make up the necessary compliment of the sleep that is wanted.

DCVII. To prolong the intervals *of health*, and prevent a fit, the remedies are all the reverse of the hurtful powers: They are, rich food taken in plenty (*p*), but remaining within its stimulant range, consequently of the animal kind, with a rejection of all sorts of vegetable matter, or a very sparing use of it; strong drink, not taken cold, unless when there is no danger of the disease (*q*) (at which time
tion,

(*p*) See par. CCLXVI.

(*q*) I know well when I may take cold drink and use some vegetable matter; it is when, for some time past, I have been well supported, and feel strong and vigorous. I also know, if I have, either in food or drink, taken any thing improper in kind, how to correct it; which is, by having recourse to a proper stimulus. By eating an exotic fruit, which had a mixture of the qualities of the water

cold water is safe after a good meal), not mixed with acid, not acedent, not under a turbid fermentation while it is taken (*r*); gestation (*s*), exercise short of bringing out sweat, or giving fatigue (*t*), a full quantity of blood, which is procured by food and the motion just now mentioned (*u*), no evacuation (*x*), sparing venery, if that could be made good in such persons (*y*), a moderate temperature (*z*), kept equally between *the extremes* of direct

ter melon the orange and lime, in a quarter of an hour I had an attack in my stomach, in the middle of my lecture last summer, at the Devil Tavern. By some of the diffusible stimulus I repelled it, and went well on with my lecture. At other times I have prevented such an effect, by anticipating the remedy. This doctrine puts much more in our power: But we should not, therefore, play tricks with it. On the contrary, we have great reason to be thankful for the command it gives us over our health, and that also, by the use of means not inelegant, nauseous, and clumsy, but quite the contrary. The old motto of Ascleiades, *tuto, celeriter, et jucunde*, is verified and improved by the important addition of *salubriter*.

(*r*) CCLXVIII.

(*s*) CCLXIX.

(*t*) Ibid.

(*u*) CCXC. CCXCV.

(*x*) CCXC.

(*y*) DCXIX.

(*z*) CXII.

and indirect debility, and inclining to neither; pure air (*a*), consequently cleanliness, and being much in the open fields, a happy train of thinking (*b*); such a state of excitement as to passion, as keeps between fiery excess and stupid apathy, with as great tranquillity of mind as possible (*c*); moderate sleep, rather inclining to be long *than short, a rule which should* be so much the more *observed*, as the disease is of longer standing and greater severity: In fine, sleep should be allowed to continue till the most vigorous watching state is procured (*d*).

DCVIII. From what has been said *it must appear* certain, that the gout of stronger persons is not also itself a disease of strength, or a sthenic one; and that it does not depend upon vigour of the constitution and plethora, as it has been commonly hitherto imagined; but that it is manifestly asthenic, like all the rest of the cases belonging to asthenia, and proved to be so by the strongest evidence; and that it is not to be treated by an antisthenic, as it has

(*a*) CCCIII.

(*b*) DXIII. DXVIII.

(*c*) CXL. CCCIII.

(*d*) DC.

hitherto

hitherto been the notion, but by a sthenic plan of cure; and that there is every encouragement *for treating it in that point of view.*

DCIII. What had hitherto deceived physicians, *and passed* for a cause of the gout, was the appearance of vigour and an over-proportion of blood, in most podagrics, from the bulk of simple solids in consequence of their way of life, and often from *great* strength. But, good men! they never recollected, that vigour and a great quantity of blood was not a property inherent in animals, but that it depended upon foreign circumstances every day and every hour (*e*). If any one, *according to that idea*, who has happened to get a great bulk of simple solids, and who has had abundance of proper diet, and lived in that way to the thirty-fifth or fortieth year of his age, should all at once be deprived of all the articles of diet; and if a dwarf two foot high, who has lived poorly, and is, therefore, meager, and slender, should equally suddenly be put upon rich living; will there be the least probability, that the former will, notwithstanding *his present* absolute want, continue plethoric

(*e*) X. XI. XII. XIII.

and vigorous; and that the latter, from being now crammed with unusual plenty, will continue empty, as he had been before? Is the fundamental proposition of this doctrine, in which it has been demonstrated, that we are nothing of ourselves, and that we are altogether governed by foreign powers, to be forgot? Is a person liable to the gout, who has for twenty years undergone an excess of stimulant operation, about the fortieth year of his age, or even afterwards, to be reckoned fuller of blood and more vigorous, either than another person who has lived lower, or than himself twenty years before? Where, pray, was the necessity of comparing gouty persons with others free from *all bias to that disease*, and not comparing them with themselves (*f*)?

Of

(*f*) Such is the effect of the powers operating upon us, that a certain degree of that operation produces an effect that would not arise under another. If the customary operation has been moderate, habit will render the excitement arising from it, in some measure, sufficient for the demands of the system: Hence, day-labourers are supported upon less stimulus than gentlemen. Again, which is a circumstance liable to happen to the latter, if the customary operation has been excessive, there will be a necessity for a continuation of some degree of the excess. A podagric

may

Of the gentle Asthma.

DCIV. Asthma is an asthenia; in which, to the symptoms in common to all astheniæ, there is superadded a difficult respiration, returning at uncertain spaces of time, often unequal, without any unusual expectoration accompanying the fits.

DCXI.

may be stronger than a labourer, and yet, fall into the gout. For, though compared with the other person, he is strong; compared with himself at another time, he is weak: And the reason is, that though he is still better supported than the labourer, he is worse supported, than the usual state of his system requires. Further, the labourer, though he falls not into the gout, may, by carrying his moderation too far, fall into indigestion, or some other disease, in every essential respect the same as the gout. A double inference arises here: Which is, that, though both excess and deficiency can be borne to a certain degree, so as to require a continuance of them, or a gradual correction, yet they should both be avoided as entailing that sort of necessity for their continuance while their effect makes no sort of compensation, being, at best, not the best state, that of perfect health, but a state of predisposition to disease; the one to sthenic and at last indirect debility; the other to asthenic, as depending on direct debility. The perfect rule for ensuring the healthy state, is to keep within the extremes of excess and

DCXI. The same are the hurtful and curative powers here, as in the gout : In the same manner are the fits *both* prevented and removed (*g*).

Of Cramp.

DCV. Cramp is also one of the cases of asthenia ; in which, often from pain, often from drunkenness, and not seldom from sweat, and disagreeable soaking heat, sometimes the wrists, sometimes one of the calves of the

defect, and thereby produce the due degree of excitement ; and to apply all the exciting powers equally, each in its due proportion. The due degree may be secured by one or a few, but the equality of it over the system can only be secured by their equal application. This proposition goes to the bottom of two extensive doctrines, that of life, and that of morals ; the last of which has as yet not attained to any thing like a fundamental principle. I intend to prosecute the idea upon some future occasion. I know a book filled with valuable ethic facts, but have not yet had time to consider, whether they all point to a general one, in which they all agree, and which reflects proof and confirmation upon them ; without which it would fall short of scientific exactness.

(*g*) This has been proved, both upon other occasions, and particularly in the case of a young gentleman, who lived with me during my first management of my gout. See Preface to the Elementa.

leg,

leg, in fine, any external part, are affected : Of the internal parts, *it is* sometimes the stomach, sometimes some part in the intestinal canal, sometimes the bladder of urine, *that* suffers : The disease is not confined to indirectly debilitating powers, as producing it ; it also arises from directly debilitating ones, *such as* abstinence, vomiting, loose belly, and drinking water contrary to custom.

DCXIII. To remove this disease; when it does not exceed the gentleness that is here understood, the whole body must be invigorated by moderate stimuli, every most urgent exciting power should be taken out of the way; gestation, and that exercise, which does not exceed the strength, should be put in practice. A more severe degree of the disease will by and by be treated under tetanus.

Of Anasarca.

DCVI. Anasarca is a form of asthma, distinguished by water betwixt the fill and the flesh, occasioning an external swelling of the body, without the signs of any suffusion of *the same fluid* into the interior parts.

DCIX. In the cure, the body must be invigorated, and in that part of it chiefly, where the greatest laxity and atony prevails, that is the skin. This indication is answered by stimulating heat, by friction, by pure and dry air, by nourishing stimulant diet, and the Peruvian bark: No internal *local* affection gives occasion to it, which may be known from the symptoms yielding to this plan of cure.

Of Cholick with Pain.

DCX. Cholick with pain is a form of asthenia, and a higher degree of the cholick without pain; in which, to the signs of debility in common to all the asthenic cases, are superadded a greater violence of the same symptoms, and twisting pain about the navel, with pain in some part of the belly, often enormous, and sometimes with a tumour, that can be felt externally (*b*).

(*b*) immediately above the brim of the pelvis, on the right-side, at the place of the blind-head of the colon.

Of

Of the Dyspepsodynia, or Indigestion with Pain.

DCXI. Indigestion with pain, is an asthenia, which adds to the symptoms of indigestion without pain, a pain and gnawing feeling in the region of the stomach, and is highly expressive of a very severe disease.

Of the violent Hysteria.

DCXII. The violent hysteria is a higher degree of the gentle hysteria; in which, besides the *symptoms* there described, mobility and changeability of mind, disposition to sleep, convulsive state, and a great resemblance to epilepsy, are conspicuous. The temperament, that favours hypochondriasis, is of an opposite nature to this, which is commonly called the sanguine. Both the temperament and predisposition in this case are produced by a moist, lax, set of simple solids.

Of the Gout of weakened Persons.

DCXIII. The gout of weakened persons, which is an encreased degree of the gout of strong persons, is that asthenia, in which the inflammation runs out to greater length, and, at last, does not form at all; and the general affection encreases in violence, in obstinacy, and, at last, attains its highest degree; exhibiting, towards the end of the disease, almost all the symptoms of debility, every form of asthenia, and sometimes by a false resemblance, counterfeiting synocha.

DCXIV. As the diseases affecting the alimentary canal, formerly mentioned (*i*), have, in a great measure, a common nature; so, these also, that is, the colicodynia (*k*), the dyspepsodynia (*l*), the violent hysteria (*m*), and the gout (*n*), are equally participant of the same, differing only from the former in their higher degree of violence. Their most distin-

(*i*) From DLVI. to DLXXVI.

(*k*) DCX.

(*l*) DCXI.

(*m*) DCXII.

(*n*) DCXIII.

guished

guished symptoms are either spasm, which takes place in the cholic, and indigestion, both with pain, or a spasmodic convulsive affection, distinguishing the rest. But neither, in that respect, do these differ from each other in any thing essential; since they *all, without distinction*, depend not only on debility, but also nearly upon an equality in the degree of it, as the similarity of their morbidic powers and remedies proves. For a very full explanation of spasm and convulsion go back to the following numbers, CLXXXVIII. to CXCIV. and from the latter to CCI.

DCXV. For the cure of them all (*o*), abstinence, fatigue, evacuations, acids, and acescents, cold, directly and indirectly debilitating passions, the debility arising from exertion of the intellectual function, and impurity of air, must be avoided. The cure of every one of them must be stimulant: When each of them is but slight, beef soup and similar rich ones, which act partly by dilution, partly by a nourishing and stimulant operation, in the weak state of the stomach, and by supporting the system, and afterwards,

(*o*) Peruse the whole of Chap. IX. Part II. from numb. CCLXXXI.

when

when the strength is so far recovered, solid animal food, and moderately diluted drink, which, at last, confirm the strength, are sufficient. In a higher degree of violence of any of them, while the soups should still be continued, at the same time pure strong drink should be administered. And when the violence of any case baffles this whole form of stimulus, recourse must be had to musk, volatile alkali, camphor, æther, and opium. These must be administered in large doses; and all acid and fermenting things, every thing cold, though accompanied with stimulus, must be guarded against.

DCXVI. For the patient's management in the intervals, all debilitating powers must be avoided, such as fatigue, abstinence, cold, and excessive heat (*p*); and take it for a certain and demonstrated fact, that *the fits of recurrent diseases* do not return from any inherent power of nature, but from human folly. Accept of that as a joyous piece of news, and such as nobody ever expected. The recurrence of fits of the gout itself is not inavoid-

(*p*) See again the same Chapter, which compare with the preceding, the VIIIth of the II^d Part.

able;

able (*q*) ; but, by guarding against the hurtful powers mentioned, may be repelled for any length of time ; and, when it happens at any time to come on from the fault of the patient, it can often be removed in two hours, and almost always in as many days, and the *state of health* secured in every respect. In all the same diseases of similar vehemence, whenever any stimulus, from a long continuation of its use, has begun to have less effect, we should *lay it aside*, and proceed to the use of another, from that still to another, and in that way go over the whole circle (*r*).

Of Hypochondriasis.

DCXVII. The hypochondriasis is an asthenia, in which, with the symptoms of dyspepsy, there is a noise in the belly, flatulency, and uneasiness, and a rooted opinion in the patient, of the disease being always worse than it is. The way is paved to the disease by a dry set of simple solids, and that temperament, in which there is a natural slowness to passion ; which, however, once excited, rises

(*q*) See par. DXCVII.

(*r*) XLI.

to the highest violence, and continues long with obstinacy. It is further distinguished by a fixed attention of mind, whereby the patient is liable to dwell to excess upon any pursuit or study, and not to be easily diverted to another, as also by a dry state of the surface of the body, a rough skin, with black hair, and black eyes, and always a dark complexion and serious aspect.

DCXVIII. From the definition given of it by hypochondriacs, it is beyond doubt an asthenia, as being accompanied with a noise in the belly and flatulency; and the course of the disease distinguished by slowness to passion, keenness in thinking, and that state of the simple solids, which requires a high force of stimulant operation to procure, and keep up a sufficient degree of excitement.

DCXIX. Since the state of the simple solids is a state given by nature, and not to be changed by art; and the only indication of cure left in the physician's power, is to fit a certain degree of excitement to that given state, which is exactly the case in this disease; *it follows*, therefore, that the stimulus of food, drink, and others, should be employed in the cure of hypochondriasis. The patient should
be

be kept cheerful, by *being placed in agreeable company*, and gay entertainments, by entering upon a journey, and amusing himself with the various scenes of nature and art through which he passes. He should ride, that, in guiding the horse, his mind may be more occupied. His studies and every subject of his *ordinary* contemplation should be often changed and varied. He should have generous wine given him to relieve the symptoms of his stomach and intestines, and to raise his animal spirits. And if these should fail of success, the diffusible stimuli, as opiates, should have their turn for a time, for the purpose of striking a stroke at once. And their use again gradually laid aside in proportion as the strength can now be supported by the more natural and accustomary stimulants. Darknefs and bad air should be shunned; pure light, and all lively objects, should be sought after. No hypochondriac, even in a fit of delirium, should be provoked, but by every contrivance soothed (s).

Of

(s) I have heard of an hypochondriac so provoked at his physicians, who maintained that nothing ailed him, that he, on the contrary, to carry his opinion of his disease

Of Dropsy.

DCXX. Dropsy is an asthma, commonly in the form of an anasarca, with a swelling in some viscus, which, for the most part, at least in the beginning, attacks some place in preference to others, and more than any other.

DCXXI. The cause of dropsy, in so far as it respects the collection of water, is easily explicable upon this doctrine, but altogether inexplicable upon any other. For the universal debility, that is laxity and atony, is chiefly predominant in the extreme red ar-

sease to the utmost; at last took it into his head, that it had attained its utmost height, by depriving him of his life. He continued obstinately in the notion of his being dead, till a more sensible practitioner was called in to see him. This gentleman agreed that he was dead, but as he could not discern the particular cause of his death; he, therefore, proposed to open the body: In setting about which, he made such a clashing with a great apparatus of instruments, provided for the purpose he intended, that the patient was roused from his obstinate sullenness, and allowed, that this gentleman had come nearer to his case than any of the rest; but acknowledged, that he now found he had some remains of life.

teries, and the exhalants immediately continued from these, as well as in the commencements of the absorvent veins; and, of the same kind of vessels, it is often urgent in a particular part in preference to others.

DCXXII. As all the debilitating hurtful powers concur in producing this, as well as any other asthma; so those powers have the greatest influence in this case, that press most urgently upon the vascular system. Hence, as *we see* in the conversion of peripneumony into the dropsy of the chest, profuse bleeding, and a large draught of cold water, when the body is fatigued, over heated, and burned up with thirst, are the most powerful agents in bringing on this disease. The hurtful effect of the latter of which, in every case of debility, when its operation is followed by no stimulus, has been more than sufficiently explained above (*t*). Besides, in this case, when all the vessels are open, the water flowing to their most weak terminations, passing out by these, and being not all transmitted from the exhalants into the absorbents, is collected into every neighbouring cavity (*u*).

(*t*) See par. CXVII. to CXXIV.

(*u*) LIX. LX. LXI.

And hence the commencement of the urgent symptom in this disease.

DCXXIII. To this asthenia belong all the watery effusions, which do not arise from a local affection, but depend on pure debility. And, therefore, if at any time any other form of asthenia, whether from wrong treatment, or other hurtful powers, in its progress terminates in this effusion; every such case should be held as a proper dropsy (*x*); and it should be ever present to our recollection, that there are only two general diseases, and that the distinctions hitherto received, are devoid of all solid foundation. Accordingly, both from other improprieties, and particularly from bleeding, epilepsy, palsy, the gout, terminate in real dropsy. Nay, the same is the termination of peripneumony itself, when it is either converted into indirect debility, from the debilitating plan of cure having been pushed to excess, or into direct debility, from having been left to itself, and the body not sufficiently debilitated. The affections, confined to parts, which are considered as the remote

(*x*) See LXXXI.

causes of dropfy, will be treated among the local diseases, to which they belong.

DCXXIV. After this explanation of the nature of dropfy, the cure of it, provided that it be a proper one, and early enough set about, ought by no means to be so much despaired of, as it should be when local affection, with a similar effusion, and the general disease are blended together without distinction, *and considered as one and the same (y)*. If long before the effusion there was no internal complaint, if the disease rather came on suddenly, and in consequence of evident hurtful powers, and yields to the first part of the curative means, there is reason to doubt of a cure.

DCXXV. Besides the general indication of cure for asthenia, that *suited to this case* must be particularly directed to the whole vascular system, and especially about their terminations, and the commencements of the absorbent veins. The remedies are also the usual ones; that is diet, as nourishing and stimulant as

(y) Sometimes the predominant symptom rises to the degree of being above the power of the excitement, as in the tumor of schirrus, and the effusion here.

possible ; first in a fluid form, when the solid cannot be admitted upon account of the debility of the stomach ; then, also in a solid ; and together with both strong drink, such as the best wine that can be got, fermented spirit, sometimes pure, sometimes diluted. If the disease does not yield to these, after their use has been continued for a proper length of time ; recourse must be had to the diffusible forms : By this means, when the effusion has not yet attained to that high degree that constitutes a local affection, not to be altered by any state of the excitement, this asthenia can be as easily cured as any other.

DCXXVI. But, when a great quantity of water has now got into some large cavity, it should immediately be removed by the catheter ; when that has been done, and the emptied cavity secured with as much care as possible, and the strength supported by wine, strong drink, and any stimulus more diffusible, we must return to the management mentioned a little above. And if it should likewise fail now, our judgment must be, that either the general disease has degenerated into a local, or that the affection has been local from the beginning.

Of Epilepsy.

DCXXVII. Epilepsy is an *asthenia*; the distinguishing symptoms of which are, some heaviness of intellect, dulness in the exercise of the senses; and then a very impaired state, or temporary extinction of the latter, accompanied with various convulsions over the body: Fits, consisting of such a concurrence of symptoms usually return afterwards at uncertain spaces of time, and *each of them* terminates in a foaming at the mouth.

DCXXVIII. As all the debilitating hurtful agents are productive of this disease; so the loss of the blood and other fluids, excess in venery, passions, such as fear, terror, assiduous and intense thinking in great geniuses; a deficiency of that kind of stimulus in stupid persons, are particularly so (z). These powers that produce the first fit, more easily bring on after ones: And besides them, certain unusual impressions upon the senses, some of them disagreeable, some highly agreeable; such as

(z) See above par. CXXXIV. CXXXVII. and the addition; CXLII. and CXXXIX.

the flavour of some foods, the smell of a rose, have the same tendency; and certain poisons (*a*) are said to have the same effect.

DCXXIX. But the appearance of symptoms is a thing full of fallacy, and, unless the nature of the hurtful powers producing them, and of the remedies removing them, be thoroughly understood, it is incomprehensible. To solve the present difficulty about poisons, and to settle *the question*, whether the symptoms belong to universal, or local disease; we must consider, whether the latter one produced by a vitiated state of a part, suppose that part either the stomach or brain, such a vitiated state, as in some point of the lower extremities proves the cause of the aura epileptica; and whether this vitiated state resists the virtue of the remedies, that perform their cure by changing the excitement; or whether all the symptoms are either relieved or removed by the change of excitement. If the former is the cause, the affection must be considered as local (*b*); if the latter be the truth, the disease must be held for a general one, and a true, but a great asthenia. Nor

(*a*) See XX.

(*b*) See above CCXXIV.

must we forget, that a great many symptoms of general diseases, from the same origin, are dissimilar; and many from different, nay, opposite causes are similar; that many local symptoms have a great resemblance to those of general diseases, and that they sometimes, by a most false appearance, counterfeit epilepsy, sometimes apoplexy, sometimes certain other general diseases besides.

DCXXX. For the purpose of preventing this disease, we must both avoid other debilitating powers, and those that have the greatest power in producing it. The vessels should be filled, by giving food as nourishing, and as effectual in producing blood as possible; the indulgence in venery must be moderated, cheerfulness and tranquillity of mind must be favoured, an agreeable train of thinking must be found, and all the objects of the senses, which give them disturbance, guarded against; the strength must be fortified by recruiting exercise, by the peruvian bark, if the approach of the fits can be perceived, and by wine and the more diffusible stimuli. A length of sleep, that is a medium betwixt too long and too short a continuance of it, should be kept up. Stimulant heat should be applied;

plied; and all excess of it as well as cold avoided (c). The purest air, such as that in the fields, which is free from moisture should be sought after. The surface of the body should be excited by friction, and cleanliness, for the purpose of cherishing the organs of voluntary motion, that are most closely connected with the animal power in the brain.

DCXXXI. The same remedies, which radically cure the gout, also cure epilepsy, and precisely in the same manner (d).

Of

(c) See CXXIV. CXXVII. CCXXVIII. CCLXXVII. CXXXVII. CXXX. CCXXXVIII. CCXXXIX. CCLX.

(d) This paragraph is the answer to the question proposed in that which stands in the Elementa, answering to the same number. That paragraph therefore is erased, and this put in its place. I had heard from some of my pupils, that they had been able by their diffusible stimuli, to remove epileptic fits. But in case of any mistake I would not venture to mark the fact for certain, which I have now done from my own perfect conviction. A young man lately married had the most alarming fit of epilepsy that ever was. His case was thought beyond remedy; as an extreme one, however, he got from some person the full of a tea-cup of tinctura Thebaica up to a blue ring a little below the brim. He got out of his fit some how or other. But was perfectly stupid and senseless

Of Palsy.

DCXXXII. Palsy is an asthma, in which, with the other proofs of the usual debility, often with some degree of apoplectic fit, commonly all on a sudden, the motion of some part of the body, and sometimes the sense of feeling is impaired. When the fit is slight and of short continuance it terminates in health; but the consequence of a higher degree and greater duration of it is death.

DCXXXIII. The hurtful powers, that usually produce epilepsy and apoplexy, also tend to produce palsy. And besides these, all the common debilitating powers that produce any asthma, directly or indirectly; great commotion of the nervous system by means of too diffusible stimuli; more affecting the circumference of the body, where the organs of voluntary motion are chiefly

less for a fortnight. Upon his falling into another I was sent for, and brought him about in twenty minutes, as I am told, (for I did not wait,) so completely, that he got out of bed, and ate a hearty meal of beef stakes. Many weeks after, by mismanaging himself, and neglecting directions given him, he fell into a slihter one, and was cured in the same way.

seated, and the internal parts and the brain less; as is evident in ebriety, gluttony, and every sort of intemperance; likewise an indolent way of life, which is commonly connected with these hurtful powers, have all the same tendency.

DCXXXIV. When the disease has once taken place, as it is kept up equally by directly and indirectly debilitating powers; so

DCXXXV. For the indication of cure, which is precisely the same as in epilepsy as the energy of the cause operates more immediately upon the surface of the body, consequently, according to what was said upon the subject of epilepsy, the principal remedies are those, that have the greatest power in invigorating the surface of the body: Such are friction, gestation, that degree of exercise which the strength can bear, for the purpose of rousing by their powerful operation, the languid excitement in the fibres of the muscles; likewise a proper degree of heat, of pure air, and therefore, as much as possible, the open air; lastly, as none of the powers endued with stimulant virtue, by any means should be omitted, in order that the excitement, which is of great consequence in every cure, be

more

more equal and vigorous all over; so in that extreme debility which produces such an impotency of voluntary motion, as it is of the greatest consequence to make an impression upon the principal symptom; we should, therefore, *employ* a great deal of an opiate, (CXXX. and CCXXX.) the influence of which, upon the surface, is the most considerable *of all* other powers, and press the cure, till some commencement of returning motion be procured; and then, without neglecting the assistance of any of the other stimuli, but using them all in concurrence or succession, for the sake of rendering their common effect more powerful and more equal, to eradicate the disease.

DCXXXVI. Debilitating and evacuant powers are to be avoided for this reason, that it is not vigour, it is not an over-proportion of blood, but a scantiness of the latter, and a deficiency of the former, that is the cause.

Of Apoplexy.

DCXXXVII. Apoplexy is an asthenia, resembling the two just now mentioned, in its cause and cure, differing in the appearance of the symptoms,

symptoms, which makes no difference in the truth (*e*): In which, besides the symptoms in common to it with them and the other astheniæ, all of a sudden, sense, intellectual energy, and the voluntary motions, are impaired, the respiration remains, but with snoring, the pulse is weak, and the whole fit is finished with the appearance of a profound sleep (*f*).

DCXXXVIII. The heads of the patients are large and not well formed, their necks short and thick: The disease arises from both direct and indirect debility, but chiefly from the latter. Of the indirect debilitating powers, the most powerful is the luxury of food, drink, and sloth, which, after its course of stimulating and filling the vessels is run, is truly debilitating and productive of a penury of fluids: And, as each sort of debility is increased by the other, and consequently the indirect by the direct, so that is remarkably the case in this disease. Hence the effect of the debilitating plan of cure is so pernicious in apoplexy, that it is received as a rule, that

(*e*) LXXXI. DXXIX.

(*f*) CLIII. CC.

the

the third fit is not often, the fourth never, got the better of.

DCLXXXIX. The cause of epilepsy, palsy, and apoplexy, is the same with that of every asthma; affecting the head less in palsy, excepting in the beginning and end, but greatly in the two others; and in all the three producing a disturbance in the organs of voluntary motion. This disturbance, whether the motion be destroyed or diminished, in convulsion seemingly encreased, amounts to the same thing, and, as was formerly explained, depends upon debility (g).

DCXL. The same here too is the indication of cure; with that, which runs through this whole form of diseases, and the force of the remedies is especially, and as much as possible, to be directed to the parts most affected. To prevent, therefore, the fits, in every respect alarming and full of danger, we ought to recollect, how far indirect debility has a share in producing this disease, and how far the direct concurs with it; and also consider the operation of a greatly advanced age. All excessive stimulus, therefore, must be avoided

(g) LVIII. CCXXX.

in such a manner, that the body may be invigorated and direct debility guarded against, the stimulant plan of cure should be set on foot with moderation and accuracy; and, in the place of the forms of stimuli, that have, either from long or excessive use, lost their stimulant operation, according to the rule of nature, others, which the excitability, yet not worn out with respect to them, can receive, should be substituted, that is, the kinds of food, of drink, and of diffusible stimuli, should be changed all round, and upon the failure of each lately used one, to return to those that have been long ago laid aside (*b*).

DCXLI. The three diseases we are treating of, are commonly supposed to arise from a plethora, attacking the head, and proving hurtful by compression upon the brain. But, besides that, plethora has no existence in any case where it has been supposed (*i*), at that extreme age at which those diseases happen; or sometimes in epilepsy, when it affects weak and starved children, how can the blood be in over-proportion? Can penury of food, which

(*b*) CCCI.

(*i*) CXXXI. CXXXIV. DXLIX. DLV.

alone is the matter that forms blood in the latter, and in the former a vigour long gone, create an over-proportion of blood, and not, on the contrary, a penury of it?

DCXLII. As plethora has then no share in inducing those diseases, so neither is an effusion of blood or of serum (*k*) upon the brain, to be accused of it. Nay, a similar effusion happens in every case of the vessels, from great debility as well as in this case.

Of the Lock-Jaw.

DCXLIII. The lock-jaw is a less degree of tetanus, its spasm being confined to the lower jaw and the neighbouring parts. This is a rare affection, without others equally conspicuous; as being a formidable symptom of fevers and wounds. When the former of these happens, it will be treated of in fevers; when the latter, it will give occasion to an enquiry, whether it belongs to local or general disease.

DCXLIV. Since it never arises immediately after a wound is inflicted, but usually happens, either when the latter is healed up,

(*k*) CXXXVII. and the addition.

or after a considerable interval of time; *the inference from that* is, that it either arises from the violence and duration of the pain, which is always a cause of very much debility, or from that debility, which the usual antispasmodic plan of cure produces, or from an unknown taint in the substance of the nervous system.

DCXLV. That it depends upon debility we have reason to believe, from every sort of spasm always depending on debility (*l*); from tetanus, which is precisely the same affection, only differing in degree (*m*), having no other origin; and, in fine, from the success of the stimulant plan of cure in this as well as all other spasms; and the want of success of the antispasmodic, or debilitating evacuant one. All the other particulars regarding this subject will be taken notice of under *the next head of disease* tetanus.

Of Tetanus.

DCXLVI. Tetanus is an asthenia, and, therefore, always affecting persons under debility, whether direct or indirect; in which, some-

(*l*) CLXXXIX. CXI.

(*m*) CCXXVIII.

times with consciousness, sometimes not, sometimes with difficulty, sometimes with freedom of respiration, the whole body, or the neck and its neighbourhood only, are bent sometimes forward, sometimes backward, and held fast by a rigid spasm.

DCXLVII. Tetanus is the offspring of cold countries, as the northern parts of Europe, but rarely; more frequently of the warm southern regions of that division of the world; but most frequently of the torrid zone. The rare *case*, such as that among us, is the sequel of a debility scarce usual in other general diseases: On the contrary, it almost always arises from that unusual debility, which is occasioned by a lacerating wound, through which fractured bones are dashed, increasing the sum of that debility that existed before, or that happened to be induced in the course of the cure. To produce the more frequent *case*, or that most frequent one of all, which is quite common in the torrid zone, the most powerful of the debilitating powers, and a very great many, if not all of them, concur. The most powerful of these is, that degree of heat, which is intolerable, to persons engaged in exercise

ercise or labour (*n*), to whom almost only, and therefore to the slaves, it is hostile. Hence, even under the slightest corporeal motion, fatigue, and sweat, are produced (*o*), and from the sweat a scantiness of blood and other fluids. From all those arises a languor over the whole body, and, therefore, in the stomach (*p*): From the languor of the stomach there is a puny appetite, and food, which is another cause of penury of the fluids, is either not taken in, or thrown up again. All these *affections*, as well as that indolence both in mind and body, which is inseparable from such a state of circumstances, are followed by the highest degree of debility over the whole body: And, as the most noxious power, the intense heat distresses the head more than any other part, as well as the organs of voluntary motion, whether in the neighbourhood of the head, or more distant from it; that is the cause of the urgent symptom, the spasm, occupying the parts that have been mentioned.

(*n*) CXXVII. and the addition.

(*o*) CXV. CXXXVII. and addition.

(*p*) CLXXXVI. CXCIV. to CXCVIII.

DCXLVIII.

DCXLVIII. As tetanus *is* occasioned by all the debilitating powers, according to the different degrees *in which they possess that effect*, and, consequently, like every other asthenia, depends upon debility as its cause; and, as all the astheniæ are removed by remedies, exciting the whole system in such a manner, as to exert the greatest influence possible upon the labouring part; the same, accordingly, is the nature of tetanus, however little that disease has been understood, the same simplicity of nature is found in it: And if there is occasion in it for the very highest remedies, that circumstance shows, that the whole disease does not depend upon the spasm, *and* that the labouring muscles are not its whole seat, but that there is vast debility in every part, *only* greater in the muscles, than in any other equal part, according to the law we have mentioned (q).

DCXLIX. From what has been said, after tetanus has taken place, and upon account of the teeth being shut by the lock-jaw, there is neither access to the weaker and less powerful stimuli of food, drink, and such like, which are often sufficient for the cure of diseases of

(q) XLIX.

leffer debility, nor any *sense* in using them; we must, therefore, immediately have recourse to the most powerful and the most diffusible stimuli possible, and continue their use without regard to quantity, not even that of opium itself, till the whole tumult of the disease is allayed (*r*).

Of Intermittent Fevers.

DCL. Paroxysms, consisting of a cold, hot, and sweating fit, are a sort of phænomena that occur in every intermittent; and, in a certain proportion, in every remittent fever. They often come on in consequence of a certain taint received from neighbouring morasses, or from a similar state of a neighbouring soil; *but they also happen, and often too,* after an application of cold only (*s*); at other times

(*r*) CCXCV. to CCCII.

(*s*) as in the vernal intermittents in Scotland. In the Mers, or county of Berwick, where I laboured three months under a tertian, that is, from the beginning of March to the beginning of June, and in the Carse of Gowrie, and some other places in that country, nothing is more common than the tertian ague happening at the time at which I was affected; and nothing is more cer-
tain

times after that of heat only (*t*), when the common asthenic hurtful powers accompany either (*u*): And they return with a remarkable exacerbation, after a temporary solution of the disease, or an abatement of it; in the cold fit, exhibiting manifest debility; in the hot, counterfeiting a deceitful appearance of vigour; and scarce ever observing any strict exactness in the time of their return (*x*); but returning sooner in a higher, and later, in a lower, degree of the disease; and not uncertain, than that cold and moisture are the chief powers inducing it. It is somewhat strange, that a man born in that country, if he would patch up a system of fevers, should have overlooked a form of them, that occurred to his eye-sight every day, and borrowed his hypothetical course from a marsh miasma, supposed to be the produce of great heat and moisture, though he had only heard or read of the intermittents of warm countries.

(*t*) In the warm countries agues often occur, when it is easy to discern heat to be an hurtful power; but when moisture is much less prevalent, for that very reason that the heat is prevalent, than at other seasons when the disease does not occur.

(*u*) "*Utramque*" is corrected into "*utramvis*" in the Latin.

(*x*) Dr. Sydenham was content to count the periods by the day, which was even too particular, but Nosology has refined the matter into the wonder of exactness to an hour.

frequently, besides the remittent, also gradually assuming a continued form; and, on the contrary, sometimes without interference, oftener in consequence of an improper method of cure, before the disease is ended, changing into quintans (*y*), septans (*z*), nonans (*a*), or into sextans, octons, and decans (*b*).

DCLI. The fever of this kind, which re-returns every fourth day, and is therefore called a quartan, is milder than that which receives the name of tertian, from its recurrence being on the third day, and the latter is milder than that which, from its return every day, is denominated quotidian. The disease, that degenerates into a remittent or continued form, is of a worse nature than that which is regular in its returns, or that which puts off fits, and protracts the intervals *betwixt them*: And, the form and type of each case being given, the whole set is both of more frequent recur-

(*y*) Where the fit does not return till the fifth.

(*z*) Where its return is not till the seventh day.

(*a*) Where the intermission continues till the ninth day.

(*b*) That is, prolonging their intermission till the sixth, eighth, or tenth day.

rence, and of a more severe kind in hot, than cold, climates.

DCLII. That this sort of fever depends upon debility throughout the cold fit, is proved by the symptoms, by the exciting hurtful powers, and by the method of cure, whether successful, or the contrary.

DCLIII. The whole disease, as well as every paroxysm, begins with a sense of cold, the greatest desire for a warm situation, (c), with trembling, and that shaking motion in which the whole body is lifted up from the bed (d), with paleness, dryness, and shriveling of the skin, with the diminution of tumors, and drying up of ulcers, that the patient may happen to have had *before the arrival of the disease*, with an impaired state of the intellectual faculty, a want of steadiness in its exertions, and sometimes delirium, with a dulness of sensation, languor of spirits, torpor of the

(c) I remember yet, that it was the highest luxury for me, when the cold fit came on, to be put in bed, and covered under such a load of blankets (for the cold of sheets was intolerable) as would, at any other time, have oppressed me. I was then about eleven years of age.

(d) By authors and lecturers in Latin absurdly called rigor.

voluntary motions, a listlessness of mind and body in all the functions, in fine, a manifest debility.

DCLIV. If terror, horror, cucumbers, cold melons, famine, debauch in eating and drinking, food of difficult digestion, have been found for certain, to have a great effect in bringing back paroxysms, after a long intermission of them; if in cold situations, where cold is the principal hurtful power, it is the poor people, who are ill clothed, starved in their diet, and enfeebled by labour, who in general are only affected with disease; if in warm regions of the globe, those who have been most exposed to debilitating hurtful powers of all kinds, who, in preference to others are seized with it (*f*); if in moist places, those who live well in their diet, and cheer themselves with their bottle, escape the disease (*g*), and water drinkers and persons in

(*f*) See DCXLVII.

(*g*) as in Holland; where the Dutch students who live not near so well as the English, are very liable to the disease, while the jolly living English, who do not like the weak rhenish wines, and the weak ill managed vin de Bourdeaux, which is a cheap dirty claret, almost never fall into the disease at Leyden, while the Dutch are perpetual victims to it as often as it is epidemic.

a state

a state of inanition from low living peculiarly experience it; all these facts show, how far this disease is from depending upon heat and moisture alone; *and prove*, that it also arises from cold, and not from either alone, but also from all the usual hurtful powers, like every other asthenia.

DCLV. Further, if every kind of evacuation, as often as it has been tried, is found, without the possibility of a doubt, to be hurtful; if no person in his senses has scarcely ever, attempted bleeding (*b*); if, before the Peruvian and some other barks of similar operation were found out *to act as remedies*, a variety of strong drinks (*i*) were used

(*b*) They have talked of taking a little blood in the spring intermittents, but that was a theory of Dr. Sydenham's, who divided the diseases of the whole year, into inflammatory and putrid; and I do not find, that that idea has ever been followed in practice. For though they follow him most servilely in most respects, especially where he is wrong, their vanity, that they may now and then seem to strike out something from themselves, disposes them to differ from him in others, especially where he is right, as in the rejection of purging in some sthenic diseases (CXXXVII).

(*i*) as ale, wort, wine, spirits, strong punch, Riverius followed this plan; and I remember it was a

used with sufficient success; and if it now also is found and demonstrated in fact, that the diffusible stimuli are by far more effectual than any bark; nay, that the bark often fails, while they are perfectly effectual in the re-establishment of health; from this sort of argument and certainty in point of fact, we derive the most solid conviction, that there is nothing in this disease different from other astheniæ, but that it perfectly agrees with them in the exciting hurtful powers, in the cause, and in the cure. And, if it differs in the appearance of the symptoms, that shews no difference of nature, and not even any thing unusual; as all the astheniæ that have been mentioned, however much they

custom among the common people to cure themselves by getting tipsy. But I was allowed neither the one method of cure, nor the other. The authority of Dr. Staal and Boerhaave, had thrown the bark into disrepute in Britain: And my mother, "who trusted in God, and not in physicians," left me to the course of desires and aversions, which were chiefly to avoid cold, and anxiously seek for heat. She kept me upon a vegetable diet in the intermissions, which I even then did not much like. It was the kindly warmth of summer, which then set in early, that had the chief effect in gradually finishing that cure

have been proved to be the same (*k*), differ notwithstanding, in a similar manner, from each other, and symptoms lead not to truth, give no real information. For, though precisely the same sound functions flow from the same state of perfect health; yet when the latter is so changed, as that the excitement is either encreased or diminished, the functions are changed from the standard into every sort of appearance, in such sort, however, that they point out no difference in the cause, as has been commonly believed, and not always even a difference of degree (*l*).

DCLVI. Accordingly, *the following demonstrated* facts of spasm, convulsion, tremor, inflammation from weakness, deficiency of menstruation (*m*), bleeding discharges (*n*), loss of appetite, thirst, nausea vomiting, diarrhæa with pain, diarrhæa without pain, and all the other asthenic affections (*o*), arising from one

(*k*) See par. LXXI. and the addition. LXXXI. DCXXIX.

(*l*) DIV. DVII.

(*m*) DXLV. and the following paragraph.

(*n*) DXLVIII.

(*o*) CLXXVI. to CXCV. and to CXCVII.

and the same cause, and being removed by one and the same operation of the remedies (*p*), and, not even in their morbid state, expressing degrees of debility in such a manner, as that it can be thought proper to take any order of arrangement from that *mark*; all these serve to confirm the observation just now made, and, by *their* analogy, to demonstrate, that the fevers also are distinguished by intervals of freedom from febrile state sometimes greater, sometimes scarcely perceivable, in common with what happens to many other diseases, not from any peculiarity in the cause, but from a variation in its force. If fevers sometimes intermit their febrile impulse, sometimes exert it more remissly, and sometimes, by performing the latter imperceptibly, go on almost in a continued career (*q*); do they, in that respect, differ from the gout (*r*), which never goes on with an equal

(*p*) CCXXII. DLVI. DLXI. DLXXI. DLXXIII. DLXXIV. to DCXCV. and from that to DCXCVIII. Look also carefully over the whole IVth Chapter of the second part.

(*q*) DCL.

(*r*) When the gout in the old way, is left to *p*atience and flannel and low diet and watery drink, it shews both

equal force, but abates from time to time; and even, when it has interposed an interval of health, returns with more severity than ever? Or do they differ from asthma, as well as many other diseases, in all which the same thing precisely happens? And what is more usual, in indigestion, and often violent vomiting (s), accompanied

both remissions and considerable intermissions. I have been often mortified, at finding, in consequence of walking a little too freely, when I thought the fit was gone, a more violent return than the first part had been; when I had not yet attained to the full knowledge of the nature and management of that disease. Which is a circumstance, that every podagric, who is still treated in the old way, can bear witness to. Dr. Sydenham fell a victim to his ignorance of its nature.

(s) A gentleman in Scotland, came to dine with his brother, who lived with me, and my family in a house in the neighbourhood of Edinburgh. He ate and drank so sparingly, that I predicted, from a knowledge I had of his manner of living, which was an excess of temperance and abstemiousness to a faulty degree, that if he did not indulge a little more in these respects, he would soon fall into a disease of debility. The prediction was verified in a few days; when his brother having occasion to go to town, found him, in the intervals of a violence of vomiting, making his testament. By a good dose of the diffusible stimulus, he removed the whole disease at once, and enabled him, with the additional help of some good sound port and genuine Madeira, in a few minutes to eat heartily

accompanied with a rage of other symptoms, than the intervention of intervals of the greatest relief? The same is the nature of the chin cough (*t*) the same as that of the asthenic cough (*v*). In fine, where is there one of all the sthenic, or all the asthenic diseases, the morbid career of which continues the same from beginning to end? There is none (*u*).

For,

heartily of beef steaks. Before his brother's arrival he had been treated in the usual evacuant, and, as they call it, the antiphlogistic way. Upon the return of his medical friends a glister was prescribed, which threw him back into his disease, from which, with the same ease and in the same short space of time, he was extricated upon his brother's return to his post. This young gentleman from that beginning, like many other of my pupils, is now a most respectable man in his profession. Some time after that, he performed the greatest cure, that ever happened since the first annals of medicine. In a very dirty ship, the Dutton, which was going to the East Indies, he stemmed, in the latitude of Rio Janeiro, a fever that was carrying off numbers every day, losing not one; as can be attested by the ship's books, for no less than five weeks—his name is Dr. Campbell.

(*t*) See 579.

(*v*) And from DLXXXVII. to DXCVII.

(*u*) All this confirms, and not only the point at present meant to be settled, which is that the distinctions, that physicians have made about the differences of fevers, are
without

For, as life in all its states (x) is always in proportion to the action of the exciting powers, upon the excitability, and both predisposition to diseases, and diseases themselves supervene in proportion to its being greater or less than the proper degree; so the course of diseases follows the same rule; and, according to the variation of the degree of that action, is one while encreased, another while diminished, another while exhibits a temporary *fr*uption; just like what happens in this sort of fevers.

without all foundation, and that they are all the same with no other difference but in degree, and that, unless in that respect, they do not differ from other diseases of the same form; but it likewise adds additional weight to our fundamental proposition, that we are nothing in ourselves, but according to the powers acting on us. Many circumstances in the course of diseases, that escape the observation both of patients and physicians, are of hourly and momentary occurrence, and sufficient, when their importance is weighed according to the principles of this doctrine, to account for the variations in the progress of diseases. We shall, by and by, see that the circumstance of heat, from the gratification of indulging in which the patient is not to be turned aside by any advice, is, with its consequences upon the whole system, sufficient to account for the gradual conversion of the cold into the hot, and the hot, into the sweating, stages.

(x) See par. IX.

DCLVII. The

DCLVII. The cause of them is the common one of all astheniæ, whether febrile or not; but under such direction and application *to the system*, that, after an interval of some hours, all their morbid energy departs entirely, or in some degree. And the reason of that is, that the exciting hurtful powers in the same proportion are either removed, or more gentle in their operation; in one word, the excitement is encreased for the time. The variation of types is not owing to a matter, subject to the same variation: For, if that were the case, how could the same case run through all the forms, sometimes of intermission, sometimes of remission, and at other times of nearly going on with a continued movement and the contrary? Is the matter, which is supposed to produce each form, in order to produce another form, changed into that matter, which is supposed necessary to the latter (y)? Is the vapour, or, as they call

(y) The ancients supposed, that every type arose from a matter suited to produce it. Now, suppose a quotidian type to depend upon any given matter, and a tertian upon any other, different from that; when either type is changed into the other, are we to suppose that the matter is also changed, and so forth of the rest?

it, the effluvium, proceeding from animals, which is supposed to produce any typhus, or continued fever, and, therefore, the Ægyptian one, when this is changed into an intermittent, or remittent nature, also, together with the change of type, changed into a marsh miasma, or defilement arising from morasses, which is supposed to produce that form of fever? Or rather does the matter, which at first produced each type, *still* continue *the same*, and become the cause of another form? If any person should fix upon the latter *as being the truth*, how should the same cause produce different effects? *But*, if he inclines to adopt the former supposition, what proof is there, that can be admitted upon any principle of reasoning, that, as often as the form of the fever changes, so often its cause, the matter, is also changed? It has been already proved, that marsh miasmata, or defilements, are not the cause (z). And it shall be by and by evinced, that the animal effluvium, or vapour, arising from the body, when affected *with a continued fever*, is not: Nay, it has been proved by the most solid arguments, that neither is any other matter

(z) DCLIII. DCLIV. DCLV.

taken into the body, either in this or any case, that which produces the disease, and that the change of excitement alone is the universal source of all general diseases (*a*).

DCLIX. To enquire into the return of fits; it is not peculiar to this form of fevers, to have a return of the general affection after its temporary solution; the same thing happens to the gout, as often as a return of the disease again succeeds to a return of health (*b*), and for the same reason (*c*): For, as those diseases are repelled by invigorating means, so they are brought back by the debilitating powers, which were their first cause. Accordingly, when the disease is left to itself, when it is treated by a debilitating plan of cure, it perseveres in returning; when it is treated with Peruvian bark, and still more certainly by the forms of wine and diffusible stimuli, and when that mode of cure is persisted in, till the strength is quite confirmed, it never returns.

(*a*) See the paragraphs XXII. XXIII. LXII. and addition LXIX. LXX. LXXII. LXXIII. and LXXXVIII.

(*b*) DCLVI.

(*c*) DCLVII.

DCLX.

DCLX. The tertian vernal fevers of Scotland go off without medicines, in process of time, first in consequence of the heat of the bed, and then, as the summer sets in, by basking in the rays of the sun, and by a moderate use of food and strong drink, *their duration commonly not exceeding* the space of three months. In all the southern regions, and even in England, the Peruvian bark, when the whole cure is entrusted to it, often fails, and they are not removed but by very diffusible stimuli (*d*).

The

(*d*) Dr. Wainman, as it was said before, found that to be the case in the fens of Lincolnshire. From which we may learn how little dependence is to be had on the facts in medicine, as they are delivered from desks or in books; from both which we have always been taught to believe, that the Peruvian bark was a catholicon in intermittent fevers. But, if it fails in the cure of the mild state of that disease in this country, what must we think of its efficacy in the malignant intermittents and remittents of the warm countries? And, if that medicine, with its universal high character, shall turn out next to an imposition, what are we to think of testimonies in favour of any thing? One of the ways of administering the bark is in strong wine or spirit, and it can hardly be doubted, but in that compound form it may have been of service. But where shall we find a panegyrist on the bark, who will make any

Vol. II. U allowance

CCLXI. The debility during the cold stage is the greatest, that of the hot less, and that of the sweating stage, which ends in health for the time, is the least of all. Hence, in a gentle degree of the disease, as cold is the most hurtful power, the consequence is, that its effect is gradually taken off by the agreeable heat of the bed or of the sun, and the strength, thereby gradually drawn forth. The heart and arteries, gradually excited by the same heat, acquire vigour, and at last, excited in their perspiratory terminations by the

allowance for the powerful medicine conjoined with it? They talk of it as a vehicle, without allowing it any other credit. In the same manner, at all times, have many powers of great operation been overlooked in the accounts given us of remedies, and the merit of the cure imputed to the most inert. I have most generally found an analogy betwixt the remedies, that are, in reality, powerful, and our ordinary supports of health. The wines and strong drinks are certainly a part of diet with most people, and so is opium among the Turks. But what analogy can be found betwixt the same ordinary supports of life, the same durable and natural stimuli, and the bark of a tree, whether brought from South America, or growing among ourselves? I will not pretend to say, that the bark is devoid of all virtue; but I must have greater proofs of its power over disease than I have yet met with, before I can retract much of what I have said.

same

same stimulus the most hurtful symptom being thereby removed, they restore the hot fit, and afterwards carry on the same process to the breaking out of sweat.

DCLXII. When the force of the disease is greater, these powers are ineffectual; and, unless the most powerful remedies are applied, the disease, instead of *producing* intermissions, rushes head-long into the remittent state only, or even into those very obscure remissions, which give the appearance of a continued disease.

DCLXIII. And, since in every case of disease of any energy, the disease returns, for this reason, that either the lesser force, by which it is kept up, is not stopt by a lesser force of remedies, or the greater force of the former by a greater force of the latter (*e*); the remedies, therefore should be given both before the cold fit, and during it, as also through the whole course of the intermission to the next paroxysm, and they should be continued even through this, and after it is over. Lastly, like the practice in every other cure of asthe-

(*e*) For the curative force must be always accommodated to the morbid, or cause of the disease. See above XCII. CIX.

nic diseases, we should gradually recede from *the use of* the highest stimuli, in proportion as the body can now be supported by the lesser and more natural (*f*).

Of the severe Dysentery.

DCLXIV. The severe dysentery, or bloody-flux, is an asthma; in which, besides the symptoms in common to *that whole form of diseases*, so often now repeated, there are pains in the intestines, gripes, innumerable dejections, chiefly mucous, sometimes bloody, for the most part without the natural *matter that passes that way*, all which happen often after contagion has been applied.

Of the severe Cholera.

DCLXV. The severe cholera adds to the common symptoms of every asthma, *those of* vomiting and purging alternating with great violence, and for the most part consisting of bilious matter.

(*f*) CV. and CVII.

Of

Of Synochus.

DCLXVI. Synochus is a very mild typhus, and such as chiefly happens in cold countries and cold seasons; in the beginning deceiving physicians by a certain resemblance to synocha, but a counterfeit one.

Of the simple Typhus or Nervous Fever.

DCLXVII. The simple typhus, or nervous fever, is such a synochus, as appears in warm countries or seasons, but somewhat more severe, and yet sufficiently simple.

Of the Cynanche Gangrenosa.

DCLXVIII. The gangrenous cynanche is a typhus, a little more severe than the simple typhus, or nervous fever, with an eruption upon the skin, and a red tumid inflammation of the throat, and with mucous crusts of a whitish colour, and concealing ulcers below them. The end of the angina, formerly mentioned (g), equals or exceeds the violence of this disease.

(g) CCXII. CCXIV.

Of the confluent Small-pox.

DCLXIX. The confluent small-pox is a typhus chiefly depending upon indirect debility. It is preceded by a great eruption of the distinct kind, and an universal crust of local inflammation over the whole body; *which*, by their local and violent stimulus, convert the sthenic into the asthenic diathesis, and the inflammatory affection into a gangrenous one. Its cure is to be conducted upon the stimulant or antisthenic plan, but in such a way, however, as is suitable to indirect debility.

Of the pestilential Typhus, the jail, putrid, or petechial Fever, and the Plague.

DCLXX. The pestilential typhus, or the jail, putrid, and petechial fever, is an asthenic disease of the highest debility, scarce excepting the plague itself; in which the surface of the body is first dry, pale, hot, shrivelled; then, chiefly towards the end, moist, drivelled with spots, and colliquative sweats, diversified with vibices, or long strokes like
those

those laid on by a whip, and wasted with colliquative diarrhœa; in which the stomach is affected with want of appetite, loathing of food, nausea, often with vomiting; in which the belly is first boundish, and then, as it has been said, subject to colliquative evacuation; in which the intellectual function is first impaired, then becomes incoherent, afterwards delirious, and that often in the highest degree; in which the spirits are dejected and wasted with sadness and melancholy; in which the voluntary motions are early impaired, and then so destroyed, that the patient cannot be supported in his posture in bed by his own muscles, or *prevented* from slipping down, from time to time, from the upper to the lower part, and the senses are either blunted, or preternaturally acute. In fine, the urine, the fœces, the breath, and all the excrementitious discharges, have a singular fœtid smell.

DCLXXI. The plague begins, holds on in its course, and ends with similar symptoms: To which, however, carbuncles, buboes, and anthraces, or fiery sores, are added. These are most frequent in the plague, but not so

confined to it, as to be excluded from the pestilential fever (*g*).

DCLXXII. Contagious matter: sometimes accompanies typhus, always the plague: The former is of a common nature, or such as is liable to happen in any part of the globe; the latter is thought peculiar to the eastern part of Europe, and the western of Asia, possessed by the Turks, called the Levant.

DCLXXIII. With respect to the contagious matter of typhus; the corruption of the fluids is by no means to be imputed to it (*b*), nor is heat so much to be blamed; for cold has an equal power in producing that effect as heat (*i*), as has also every thing, as well as heat, that either directly, like cold, or indirectly like it, debilitates (*k*). Nay, the emptiness of the vessels, from want of food, or from the incapability of the digestive organs to take it in and assimilate it, as also that debility which is induced by melancholy and grief, though, *in these cases*, no matter at all is present, admit

(*g*) CCXIX.

(*b*) See above CXV. CXXII. CCXXXVI. and the addition I.

(*i*) Ibid. and CCLXI.

(*k*) See again CCXXXVI. and the addition at I.

of the same application (*l*). By means of that debility in the extreme vessels, internally, as well as externally, and, therefore, especially in those of the alimentary canal and in the perspiratory vessels, the fluids stagnate; and by stagnating under the heat of the body, degenerate into that foreign quality, which, in a more extensive sense, is called corruption, but in a more uncertain one, putrefaction (*m*).

DCLXXIV.

(*l*) These words from "Nay" are an addition to the *Elementa*; the words, in the original, corresponding to them, being "Immo vasorum ei cibis negatis, vel adsum digerique non potibus, inanitas, item a tristitia et mœrore, ubi materia nulla subest, inducta debilitas, eodem pertinent."

(*m*) There are three states or qualities produced in fluids by as many different fermentations, the saccharine, acid, or putrefactive. To one or other of those we are apt to refer every state of corruption in our fluids; but they are liable to degeneracies, which do not exactly correspond to any of those: And, as we are not yet acquainted with any of those deviations from the natural state, it is safer to use the general term corruption. Even the word *acrimony* is too general, as we can by no means pretend to say, that perfect blandness is the natural and healthy state of our fluids: Nay, the different uses and subserviency to the functions seem to require a considerable deviation from blandness; the urine, the perspirable fluid, the bile, and others, being intended, by a certain poignancy,

DCLXXIV. As the cause of all these diseases is the same with that of diseases not febrile, to wit, debility; differing only in this, that it is the greatest debility compatible with life, and not long compatible with it; so

DCLXXV. The indication also of cure is the same as that of the other astheniæ, but must be conducted with a good deal of more attention than is *necessary* in them, upon account of their much greater mildness (*n*). It is, then, debility alone, that is to be regarded in the cure; and stimulant or antisthenic remedies alone, that are to be administered. Nor is there occasion for any distinction in the method of cure, but what direct or indirect debility requires (*o*).

poignancy, to answer certain purposes. These, compared to certain blander fluids, may be said to be acrid; while compared to their state in morbid degeneracy, they may be called bland, and the latter acrid.

(*n*) Fevers will require many more visits from the physician than are commonly either bestowed or ~~required~~, *expected* and often a good deal of watching. While this is more generally the case in fevers, at least in the high degree in which these fevers exist, at the same time they are not the only ones that require such strict attention; as every disease, when it has attained to the same degree of debility, endangering life, will claim the same circumspection and vigilance from the judicious and conscientious physician.

(*o*) See par. CIII. CVII.

DCLXXVI.

DCLXXVI. The indirectly debilitating powers, are the violent and local stimulus of the eruption in the confluent small-pox (*p*), so often inducing prostration of strength, and drunkenness (*q*), heat (*r*), or long continued luxury (*s*). To these hurtful powers, thus indirectly debilitating, all, the others may more or less be added (*t*).

DCLXXVII. And as it never happens, that either direct or indirect debility alone proves hurtful, *hence we have a third case given, where we have to combat both sorts of debility* (*u*).

DCLXXVIII.

(*p*) See CLXXV. CCXV. CCXVI. CCXVII. CCXVIII.

(*q*) CXXX. and addition.

(*r*) See CXV.

(*s*) See above par. CXXVII. and addition.

(*t*) Look for them in Part I. Chap. I.

(*u*) Suppose any direct debility has occasioned a disease, when that is established, the excitability is so morbidly accumulated, that the slightest exertion of any exciting power becomes too much for it; which immediately constitutes an admixture of indirect debility. The stimulus of corporeal motion, which is a great and rough indirectly debilitating power, is often too long continued, after a typhus fever has begun its insidious attack upon the habit; and hence the after-part of the disease becomes more se-

were

DCLXXVIII. The directly debilitating powers are known, to wit, cold (x), low diet,

(x) See par. CXVII.

vere and dangerous. It is also to the same cause that we owe the propriety of excluding light and sound, when they prove causes of irritation, their stimulus, though slight, being too strong for the accumulated excitability. The guarding against gusts of passion and emotion, as well as mental exertion, is all upon the same principle. When a person falls into a fever from excessive labour and low diet at the same time, that is an instance of a mixture of debility from the beginning. Again, when any disease, chiefly of indirect debility, is treated by bleeding, other evacuations and starving, that is an instance of a superinducement of direct upon indirect debility. A judicious practitioner, and who prescribes according to the rules that arise from a near acquaintance with the operations of the inanimate part of matter upon living systems, will find plenty of scope for the exercise of his judgment in these and many other niceties: And he will find, that the Brunonian doctrine, as it is now nick-named by those who know it not, is not a doctrine to be practised without knowledge, with judgment, and without sense; but that it requires every part of knowledge requisite to throw light upon so extensive a subject, as that of the science of life over all nature, and all the judgment and good sense of the soundest understanding to carry it into application upon many occasions of nicety and difficulty. The trash that has hitherto too often passed for knowledge, is to be acknowledged not only useless, but hurtful. But the true knowledge of nature must be always elegant, always satisfactory,

diet (*y*), bleeding, and other evacuations (*z*), rest of body and mind, and want of passion and emotion (*a*), and impure air (*b*).

DCLXXIX. As both those sets of powers act by debilitating; be, at the same time, on your guard from believing, that some of them are septic, and prove hurtful by fermentation, and are to be cured by antiseptics, or powers that resist putrefaction; and that, among the former, heat is to be reckoned; among the latter, cold, wine, the Peruvian bark, and acids (*c*).

DCLXXX. In the gentle cases, as in the agues of cold places, and especially the vernal tisfactory, always useful. It is to be hoped the day is not far distant, when this doctrine will change its present appellation, into that of the doctrine of Nature, over the living part of her productions; comprehending not only the morbid but healthy phenomena, and the distinctions between the living and dead state.

(*y*) CXXVIII.

(*z*) CXXXIV. CXXXVII. and the addition.

(*a*) CXXXVII. and addition, and CXXXIX. and CXLII.

(*b*) CXLVI. Compare the whole with Part II. Chap. X. all from CCXC. to CCCXII. and from that to par. CCCXV.

(*c*) See par. DCLXXIII. and the addition.

agues (*d*), and likewise in synochus, in the simple typhus, and in the plague itself, when mild; scarce any stronger stimulus than wine is required; and the rest of the cure is to be conducted according to the directions so often now laid down in the mild asthenic diseases.

DCLXXXI. In the most severe fevers, such as the remittent (*e*), in the warmer regions of the earth, and in the torrid zone, and in the severe typhus, when it is pestilential, in the very violent dysentery and cholera of the same places, and in the most violent plague itself (*e*), the cause of all which affections is in general direct debility; or in gentler cases of the same disease at first, and that have now acquired a great deal of virulence in their progress from the neglect of the proper, or the use of an improper plan of cure; we ought immediately to begin with the highest diffusible stimuli, such as opium, volatile alkali, musk, and æther, in small doses but often repeated (*f*); and afterwards, when the strength is restored, and the force of the stomach confirmed by

(*d*) See DCL. DCLIV. DCLX.

(*e*) DCL. DCLX. DCLXIV. DCLXV.

(*f*) XLI. XLIII. CXIII. DCLX. to DCLXIV.

their use, to proceed to *the use* of food, drink, gestation, pure air, cheerfulness, and, last of all, to the usual offices *and occupations* of life.

DCLXXXII. When indirect debility has had more concern in the cure, as in agues, or more continued fevers, occasioned by drunkenness, and in the confluent small pox; the same remedies are to be employed, but in an inverted proportion *of dose*. We should, consequently, set out here in the cure with the largest doses, and which, are next in quantity to that degree of stimulus, which produced the disease (*g*); then recourse should be

(*g*) This may be exemplified by the treatment of a person the next and second day after he has been hurt by drinking. His excitability has been worn out by an unusually strong stimulus, the effect of the first night's sleep is to allow it to accumulate again: In this state much exercise fatigues, for want of excitement to enable it to be born: Fluid nourishment is commonly used, but it is not strong enough to waste the redundancy of excitability, and bring the patient back to his healthy excitement. The dram drinkers know the remedy, but they know not its bounds. They have recourse to a glass of strong spirit, and they would be right if they stopt at one, two, or a very few, according to the quantity, that their former habit may render necessary, and take

be had to lesser stimuli, and a greater number of them, till, as was said just now (*b*), the strength can be supported by the accustomary and natural stimuli (*i*).

take no more than what gave them an appetite for solid nourishing animal food; which, whatever the quantity that is required to produce it be, is the best general rule: But they go on, and every day till that of their death, which soon arrives, renew the disease. The rule is to take a little of what proved hurtful, till a return of appetite comes on: After eating a little, a walk or a ride will add more stimulus: The air, in which the exercise or gestation is performed, will furnish another. In that way, more strength will be acquired in proportion as a greater number of stimuli have wasted more excitability, and with more equality. A second day's management by applying the stimuli in still a lesser degree, will commonly remove all the complaints. When an habit of hard drinking has brought on, as it always will sooner or later, a very bad and confirmed disease; if the excitability is nearly worn out, and what remains is very unequal, as having been produced chiefly by an alternation betwixt one stimulus acting with partial excess and sleep, either imperfectly removing the excess, or by its length superadding direct to the indirect debility, which the drink occasions; the patient should have somewhat a lesser quantity, than that which at any time hurts him; then the next day still less; and so on, till very little will serve him, and he should add all the other stimuli in proportion as he diminishes the morbid one.

(*b*) DCLXXXI.

(*i*) CCCVIII. to CCCXII.

DCLXXXIII.

DCLXXXIII. To give some estimate of the dose in both cases (*k*) ; in direct debility, where the redundancy of excitability does not, for the time, admit of much stimulus (*l*),
 ten,

(*k*) DCLXXXI and DCLXXXII.

(*l*) The abundant excitability of an infant cannot be reduced at once to that wasted degree, in which the strength of an adult consists ; it must be by the gradual application, of what it can bear always for the present time that that can be brought about ; and, therefore, not sooner than a space of time, equal to half the individual's given period of existence. In a similar manner, an excitability that has been accumulated from deficiency of stimuli for a number of weeks or months, will require a space of time, somewhat proportioned to that, to wear it out in the manner most suitable, to restore the lost vigour. Some health will be sooner brought about, but the effectuating of perfect health must be a work of time. Again, the direct debility of a few days will be easily removed in a few days. In fevers, and every case of high debility, the accumulation of excitability for want of stimulant power to produce excitement, must be estimated by the number of stimuli that have been withheld, as well as the degree of force of each of them. In a fever, then, the stimulus of exercise, of the open air, of conversation, of diversion of every kind, of an agreeable flow of spirits, of a pleasant train of thinking, of light and sound in a great measure, as well as of the exercise of all the other senses, and particularly the stimulus of a due quantity of blood, and other fluids, and most
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ten, or twelve drops of laudanum given every quarter of an hour, till the patient, if,

especially that of nourishing food, and, at least upon the common plan of practice, that of wine and exhilarating drink, all these, are withheld, and, therefore, for want of them, the diminution of excitement must both be great and unequal. What then is required as to the idea of the cure? Since most of those, which are the ordinary stimuli, by which the ordinary health is supported, cannot be applied; the proper idea is to look out for a power in nature, that can, as nearly as possible, supply, both the degree and equality of stimulant operation that is wanted. Such a power we find in the few diffusible stimuli, and particularly in opium (See par. CXXX. and the additions). Any of these act powerfully on the stomach, and diffuse proportional excitement over the system. So soon and effectually do they pervade it, and act with the most powerful effect upon the surface, that it is often an object of attention in the practice to think of means to prevent it from going too far. By the blessed use of those remedies, the excitement of the stomach is restored, so that with a return of appetite, food can be taken in, and digested, in so far as the powers of that organ go; which are confined chiefly to the first part of digestion, or what is called the first concoction. Next the excitement is restored in the other digestive organs, in the duodenum, in the biliary vessels, the pancreatic duct, in the lacteal vessels, throw their whole course from the intestines to their common receptacle, as all the vessels that return lymph from every part of the body, in the veins betwixt the thoracic duct and the heart, in all the cavities of the latter, in
all

if, as is usually the case, in such a high degree of debility, he has wanted sleep long (*m*), falls

all the red arteries, in the colourless terminations of all these, whether exhalant or glandular, and whether only simply separating, or also changing, the property of the fluid they secrete, in all the internal cavities of the body, in the commencing extremities of the absorbent vessels, and in their progress throw their lymphatic trunks to the receptacle in common to them with the lacteals, which are a part of their number, in the thoracic duct again; as also from that to the heart, and from the heart to the extremities of the arteries: Lastly, the influence of excitement is extended to these terminations of the arterial system, whether exhalant or glandular, which perform the several functions of excrementitious secretion and excretion, by which every portion of fluids, now become useless, or, if they were retained, hurtful to the system, are thrown out by their several emunctories. When, by the use of the diffusible stimuli, the stomach, and all the organs can perform their respective functions, the natural stimuli begin to be restored; the stomach, the intestines, the lacteals and blood vessels, and all the other vessels, are gradually filled with their respective fluids; the muscles on the surface, and the muscular fibres recover their tone and density; the brain recovers its vigour; heat and air can be now restored to the surface; exercise can now add its useful stimulus; and all the functions return to their usual capability of being acted upon by the usual and ordinary exciting powers.

(*m*) Want of sleep is an indirectly debilitating power; and, in this weakened state of the system, in this re-

falls into it: After sleep, when now some vigour is acquired both by that and the medicine, and now some of the excessive excitability is worn off, a double quantity of the diffusible stimulus should be added, and, in that way, gradually encreased, till the healthy state can now be supported by stimuli lesser in degree, greater in number, and more natural (*n*).

DCLXXXIV. In indirect debility an hundred and fifty drops should forthwith be thrown in; and then the superaddition *to be made*, should be less and less, till *we arrive at* the boundary just now mentioned (*o*). Both the measures are recommended (*p*), are in general applicable to adults; but less will suffice at an early or late age. Nay, the rule further varies according to the habit, the way of life,

dundancy of excitability, where every exciting power is liable to be too much for the excitability, the want of sleep, by not allowing this partial waste of excitability to be repaired, is the occasion of so much more indirect debility being added to the direct; and hence the sum total of debility is encreased. The effect of sleep in removing this partial indirect debility becomes so far an invigorating power.

(*n*) See above par. CIII. and CVII.

(*o*) DCLXXXIII.

(*p*) in par. DCLXXXIII. and this.

the nature of the place, and the peculiarities of the patient (*q.*)

DCLXXXV. And since the use of the diffusible stimuli only succeeds, when life cannot be preserved by the usual and more congruous to nature, and a due quantity of blood and other stimuli soon become sufficient to finish the healthy state; we should, on that account, even from the beginning im-

(*q.*) When the habit is delicate, the patient's way of life moderate as to the use of the stimuli, the place cold, or both cold and moist, and the patient easily affected with stimuli of all kinds; in all these cases the rule, which common sense prescribes, is to diminish the dose of the diffusible. A lady in Edinburgh, who had born and nursed many children, had lived exceedingly moderately, had been and still was very assiduous in the management of her family affairs, and usually stimulated with little air out of her own house, fell into a cholic, and, by the evacuant and starving plan, had been kept in it for a full month, till the urgent symptom of vomiting required further assistance: When I came, I first retarded the vomiting by a glass of whisky: And, by two more, with no other help but that of a mixture containing 30 drops of the Thebaic tincture, which the surgeon had been administering in miserable small portions, in three hours removed the whole disease. As I have said somewhere before, the disease, from her neglect in fulfilling directions, had very nigh returned next day; but another glass repelled it.

mediately give animal food, if not in a solid form, in which it can neither be taken nor digested, at least in a fluid form, in that of soups; which should be alternated with all the doses of the diffusible stimulus: Then, in a gradual way, proportioned to the return of vigour, first a very little of something solid, and afterwards more and more, should be thrown in, and the other stimuli, each at its proper time, brought into play; till the whole cure terminate in the management commonly observed in good health, where there is less occasion for medical injunctions.

DCLXXXVI. When the affection is more a mixture of both sorts of debility, these proportions of the doses must be blended together.

DCLXXXVII. Contagion, which either adds nothing to the effect of the usual hurtful powers, or proves hurtful by the same operation *by which they are so*, is not otherwise to be regarded, than that time be allowed for its passing out by the pores, together with the perspiratory fluid, and, therefore the perspiration be properly supported; which, as it is
affected

effected by stimulating, is no addition to the *general* indication (*r*).

DCLXXXVIII. Lastly, the corruption of the fluids in the extreme vessels must be obviated (*s*), not by means, that by a direct operation remove it, but by the powers that act upon the excitement of the solids, and that encrease excitement over the whole body, and, therefore, *among other parts*, upon the labouring vessels.

DCLXXXIX. Having now run over the whole scale of decreasing exciting power from peripneumony to the plague, and from death by indirect, to death by direct debility; *and having so executed the work, as to present the public* with a new science, if not finished off in an elaborate, elegant, and highly polished manner, at least marked in outlines, and, like a rough statue, to be polished afterwards, in some measure fashioned in all its limbs, and embracing an entire plan of a work, connected in all its parts; we must next pass over to the consideration of local diseases.

(*r*) See LXXXVIII. XCVIII.

(*s*) CCXXXVI. addition at I. and CCLXXIV.

THE FIFTH AND LAST PART.

LOCAL DISEASES.

CHAP. I.

Of Local Diseases.

DCXC. **L**OCAL diseases (*a*) are divided, according to an order of nature, into five parts; the first of which consists of organic affections, where no disease over the whole system arises, none but in the hurt part. This is a sort of affection, that happens in parts less sensible, according to common language, or more devoid of excitability.

(*a*) V. VI. VII.

DCXCI.

DCXCI. The second part, likewise made up of organic affections, occurs in parts *of the system*, whether internal, or external, that are very sensible, endued with a great deal of excitability (*b*); where the effect of the local affection is propagated over the whole body, over the whole nervous system, and where a very great many symptoms arise, similar to those which are peculiar to universal diseases.

DCXCII. The third part of local diseases, *takes place* when a symptom of general disease, that at first arose from encreased or diminished excitement (*c*), arrives at that height

(*b*) The excitability is here not talked of in its comparative states of abundance or deficiency, but in the degree in which any part possesses it in preference to other parts. It is used in the sense of the greater or lesser vitality of parts: Accordingly we can say, that some parts possess an exquisite sensibility, as the stomach, the brain, and intestines, and, I believe, most of the interior, soft, fleshy parts, and the shut cavities; and externally, the parts immediately under the nails; that others possess less, as the bones, ligaments, and cartilages and ligaments; and externally, the cuticle, or scarf-skin. It is, with respect to the difference of sensibility, or excitability, or capability, to be acted upon by exciting powers, that we use the expression of more or less excitability. See above par. XLIX. and the addition, and LIII. and addition.

(*c*) like all the other symptoms, of which it was one,

of

of degree, at which, being no longer under the influence of excitement, it cannot be affected by remedies that correct the excitement.

DCXCIII. The fourth part, *or division* of local diseases, consists of those, in which a contagion, externally applied to the body, is diffused over all, without affecting the excitement (*d*).

DCXCIV. The fifth part of *local diseases*, arises from poisons *that have been* applied to the body, and flow through all the vessels in such a manner, that they are understood not immediately, nor at first, to have any tendency either to encrease or diminish the excitement, but falling upon parts, some on one, some on another, hurt the texture of these in different manners; and, after occasioning that *local* hurt, by means of it produce disturbance over the rest of the body.

(*d*) If it affected the excitement its effect would be general disease, which sometimes happens, as in the small-pox, measles, contagious typhus, and the plague.

C H A P. II.

The first Part of Organic Local Diseases, where no Effect, but in the hurt Part, arises.

DCXCV. WITH regard to the first part of local, organic diseases; the hurting powers, that produce them, are such as produce a solution of the continuity of a part, by wounding, eroding, or poisoning; or that derange a part by contusion, compression, or spraining.

DCXCVI. The hurting powers, producing solution of continuity, are all cutting, pricking, or missive, weapons: Acrid bodies and poisons produce solution of continuity in another manner.

DCXCVII. When any of these hurting powers slightly divide the surface, and scarcely, or not at all, get to the bottom of the skin; for the cure of so trifling an affection, there is occasion for nothing but shutting out the air, and cold, and excessive heat, and avoiding every irritating substance. For the only use of the cuticle is, by means of its insensibility,

bility (*a*), (it being a simple (*b*) solid, and devoid of all excitability), to keep off the air, and all excess of temperature, and every rough or rude matter, which are all inimical to living solids (*c*), whether external or internal.

DCXCVIII. When the surface, therefore, is hurt in its texture, either by being cut, or bit, or stung by venemous animals, or by being burned, or by a very high degree of cold; in that case a thin, mild, oily plaister is sufficient for the cure.

DCXCIX. The division, therefore, of phlegmasiæ, into phlegmone, or erythema, is without foundation, and misleading, both as to the cause, and as to the cure, from the

(*a*) See DCXCI. and the note.

(*b*) not a living.

(*c*) So hurtful is the air and temperature to all parts below the cuticle, that nothing is a more certain cause of gangrene than their exposure, even for a very short space of time: Nor is there any other way of accounting for the fatal effect of slight, superficial, but extensive burning. Death has been the consequence of a burn, that extended no further than the fore-part of the thorax, or the breast, and was not of longer continuance, than the time taken to tear off the burning clothes that occasioned it.

knowledge of the truth (*d*): For, however much they differ in their remote cause, as they call it, and in their seat, and in their appearance; since the exclusion of the air and of other stimuli is their effectual cure; it, consequently, follows, that their cause is the same, that is, that the nature of all these affections is the same.

DCC. In *the cure of* contusion, compression, and sprains (*e*), the same, in general are the remedies; and besides them, there is occasion for rest *of body*, and bland tepid fomentations.

DCCI. Through this whole division of local affections, there is a certain energy of nature, that tends to the restoration of the healthy state; but it is not the celebrated vis medicatrix naturæ of physicians: For in this

(*d*) See the seventh Genus in *Genera Morborum Culleni*, where you will find Linnæus's prototype of inflammation, that is, of inflammatory diseases, or what is in this work called phlegmasiæ, or sthenic diseases with inflammation or an approach to it, also adopted by this author. It is nothing else but a collection of local affections, or, in a few cases, symptoms of disease, and that they almost all come under this head of local diseases, and every one of them under one of these heads.

(*e*) See par. DCXCV.

case

case nothing else happens, but what *equally happens* in the cure of general diseases. If proper remedies are applied, the sound state in both sorts of diseases follows: If the remedies be neglected, the solution of continuity degenerates into a worse and worse nature, and then into gangrene, or the death of the part (*f*). It is the excitability, or that property of life, by which the functions are produced (*g*),

(*f*) Of this we are presented with examples in every day's experience; where we find the slightest sores, from the neglect of the simple rule of cure laid down here, degenerate into very troublesome affections.

(*g*) See above par. X. to XIV. If I cure a peripneumony by bleeding, other evacuations, and other debilitating powers, that are not evacuant, it is by diminishing the force of exciting power; if I cure a fever by opiates and other stimulant powers, whether stimulating by filling the vessels, or without that, it is by encreasing the same force; and if I cure a sore on the surface, by the method just now mentioned, I thereby prevent the force of exciting power from rising too high, from an excess of stimuli, or from running either into direct or indirect debility, from too little stimulus, or an ultimate excess. If either these general or local cures are neglected, or mismanaged, the cure will not be supplied by any effort of the system; and if the cure is made out by regulating the excitement, such effort is superfluous. The *vis medicatrix* then is as little real in local as general diseases. See above par. LXII. and the addition. The rest of this paragraph in the Latin is erased.

that,

that, wherever life, whether in a part, or over the whole body, is hurt, procures *the return of the healthy state* by means of the external powers acting upon it. *It is*, then, the excitability, affected by *the action* of those powers, that is to say, the excitement, *that* governs the state of the solids, both in parts, and over the whole body (g).

CHAP.

C H A P. III.

The second Division of Local Diseases.

DCCII. THE local organic diseases of the second division are the inflammation of the stomach (*a*), and that in the intestines (*b*); as also bleeding discharge, with an inflammation subsequent to it; and, in fine, an inflammation in any very sensible part, in consequence of a wound, producing commotion over the whole body.

Of the Inflammation in the Stomach.

DCCIII. The principal symptoms in gastritis are, pain in the region of the stomach, a burning heat, deep seated, encreased by every thing that is either ate or drank, or in any shape taken into the stomach; hiccup, an inclination to vomiting, and the sudden throwing up what is taken in; and the pulse soon getting into a state of debility, quickness, swiftness, and hardishness.

DCCIV. The exciting hurtful powers, and which produce the solution of continuity *in*

(*a*) or gastritis.

(*b*) or enteritis.

this case, are such as act by cutting, pricking or erosion. Such are the small bones of fishes, ground glass, or Cayenne pepper and such like things.

DCCV. Inflammation is a consequence of the wound or erosion, that are the effect of the operation of those *exciting powers*: The effect of which, in the very sensible organ of the stomach, is to diffuse the disturbance before-mentioned (c) over the whole system. The burning heat and pain, inseparable from every inflammation, and the anxiety (d), are the offspring of the inflammation (e): And, of them, the anxiety is more peculiar to the stomach, the latter being its accustomed seat (f), and the pulse becomes such as has been related, because it is peculiar to every rude, fixed, and permanent *local stimulus* (g); to weaken, and *to be* so much the *more liable to that effect*, the greater the excitability of the part is. Hence, in the external parts of the body, that are less endued with excitability, a pretty con-

(c) DCXCI.

(d) CLXXI. CCCXLV.

(e) CLXXI.

(f) CCCXLV.

(g) XVII. and the addition.

considerable inflammation by no means affects the pulse or the body any way generally; though even there, when a part is sensible, as in the case of a burn spread to any extent, or of a thorn having been thrust below the nails, an equal disturbance arises over the whole body (*b*), which confirms a former proposition, *in which it is asserted*, that the more abundant the excitability is (*i*), the less stimulus can be borne (*k*).

DCCVI. The disease is easily known, both from the symptoms *above* described, and, with not a little more certainty, from the known taking in of the hurtful powers; and, over and above, by this particular sign, that, as it has been said before, without such marks, inflammation scarce seizes upon an internal and shut part (*l*).

DCCVII.

(*b*) CCCXLIV. CCCXLV.

(*i*) XXXVI.

(*k*) The rest of this sentence is erased, in the original, as being nonsense.

(*l*) CXIII. and CLXVIII. The stomach is sometimes inflamed from a schirrous tumor occupying the pylorus; and that case also is taken in by the systematic and nosological writers, as belonging to their gastritis: But the consideration of it does not belong to this head of
loca

DCCVII. As this is a local disease, and does not, like the general ones, depend upon the encrease or diminution of excitement; consequently, the indication suited to the latter, to wit, to diminish encreased, or encrease diminished, excitement, over all, will not apply. On the contrary, unless a general disease happen to be combined with it, nothing else is to be done, but, by throwing in bland, demulcent liquors, to defend the tender part from the rude contact *of the stomach's contents*, and give the inflammation time to finish its course; and, if the physician is called soon enough, to wash off the hurtful matter with a diluent drink.

Of the Inflammation in the Intestines:

DCCVIII. The inflammation in the intestines is a local affection; in which there is an acute pain in the belly, and distention, and

local diseases, but to the third division of them. At the same time, both it and the present case are local diseases, and not phlegmasiæ, differing from the phlegmasiæ, so fully treated of in the third part of this work. It, as well as enteritis, of which we are next to speak, have every mark of difference from the general diseases mentioned in the VIth paragraph. See also Chap. I. of the fifth Part.

sometimes a sort of twisting of the pain around the navel, with vomiting, and an obstinate costiveness, and such a pulse as in the inflammation of the intestines.

DCCIX. The hurtful powers, exciting this disease, are precisely the same, as those that have been said to excite the inflammation of the stomach, that is :

DCCX. The inflammation arises in a similar manner, as in the inflammation of the stomach, and the more readily, that the intestines are more sensible than the stomach (*m*). And hence also, in a similar manner, is a state of disturbance diffused over the whole body.

DCCXI. The acute pain of the belly depends upon the inflammation : Its distention and the costiveness is the offspring of the detained feces. The same is the cause of vomiting ; for the peristaltic motion being prevented, upon account of the obstruction, to proceed downward in its usual way, from its restless nature recoils in the direction upward ; as affecting neither direction, unless in so far

(*m*) Baron de Haller, from some experiments that he made, found the intestines more sensible than most parts of the body, more than the stomach, and equal in sensibility to the brain.

as the stimulus, by the impulse of which it is regulated, either commences from above, as health requires, or from below, as happens in other diseases, and in this in particular (*n*). The pain twisting about the navel, is produced by the inflammation, for this reason, that the principal, and by far the greatest part of the intestines, is thrown in a convoluted state about the navel.

DCCXII. The diagnosis is the same as in the gastritis; excepting, that the seeds of fruits, hairs, and similar foreign bodies, sometimes upon account of the torpor of the peristaltic motion, adhering to the sides of the intestinal canal, gradually, by their irritation, kindle up an inflammation: Which is a fact, that if examined attentively, and once rightly considered, will not disturb our diagnosis.

DCCXIII. The cure is precisely the same as in the inflammation of the stomach.

DCCXIV. All the rest of the pretended phlegmasiæ, distinguished by the appellation of “*itides*,” as the splenitis (*o*), hepatitis (*p*),

(*n*) See par. CLXXXVIII. CLXXXIX.

(*o*) or inflammation of the spleen

(*p*) or the inflammation of the liver

the true nephritis (*q*), the cystitis (*r*) without a stone, or the hysteritis, not arising from schirrus (*s*), and the peritonitis (*t*), do not belong to this place; as, besides the doubt of their ever being inflamed, not arising from stimulants and acids, neither of which have access to the shut viscera (for these substances are not carried in the vessels, or can be carried), but from the relicks of other diseases, of which we are to speak afterwards, with the following exception:

DCCXV. The exception is, that if any one falls from a height, if he is run through any part of his bowels with a sword, if a poisoned arrow, thrown by any savage, has pierced any of his inward parts, he will, in

DCCVI. The case of the inflammation affecting the liver, be affected with a pain in his right hypochondrium, with vomiting and hiccup: If

DCCXVII. The inflammation affect his spleen, the pain will be in his left hypochondrium; in

(*q*) or inflammation of the kidneys.

(*r*) or inflammation of the bladder of urine.

(*s*) or inflammation of the womb.

(*t*) or inflammation of the peritonaeum.

DCXVIII.

DCXVIII. The case of the true nephritis, or inflammation of one of the kidneys, he will be pained in the region of the kidney, and seized with vomiting, and a stupor of his leg; in

DCCXIX. The case of the inflammation happening in his bladder, he will have a tumour and pain in the under belly.

DCCXX. Bleeding discharge, followed by inflammation (*u*), such as happens in the inflammation of the womb, or of any neighbouring part, and in abortion, and in the wound of any internal part, is easily distinguished by the pain of the affected part, and by the preceding accident.

DCCXXI. In the inflammation of the womb, or any neighbouring part, the lower belly is affected with heat, tension, tumour, pain, and *these symptoms accompanied with* vomiting (*x*).

(*u*) DCCII.

(*x*) The inflammation is frequently not in the womb, but in a neighbouring portion of the intestines, or mesocolon, or in the peritoneum itself, as dissection has frequently shown. This is a disease, than which none has been more enquired into, and none yet less understood.

DCCXXII. The hurtful powers, that excite the hyfteritis, or inflammation of the womb and parts in its neighbourhood, all amount to violence done to the womb. Thus using violence during the labour, hurrying the birth, often produce a solution of continuity, and wound the womb with a tearing *rudeness*.

DCCXXIII. And, since a great deal of blood is often lost in that way, and the local affection followed by debility of the whole system (*y*); for that reason bleeding, according to the common practice, any mode of evacuation, are not to be practised, nor is the patient to be forbid to eat; but, in the first place, regard is to be had to the affected part, the body must be laid in an horizontal posture, she must be kept from motion, and be allowed rich soups and wine: By and by more solid animal food should be used morsel by morsel; but frequently repeated, and she should have her belly bathed: And, if the debility should get a-head, recourse must be had to more wine, drink still stronger, and opiates: The

(*y*) Pain and loss of blood are in one degree or another inevitable causes of debility.

use

use of which last should not be neglected, even at first.

Of Abortion.

DCCXXIV. In abortion, the back, the loins, the belly, are pained, like what happens in child-labour; and there is either an unusual flow of the menses, or an extraordinary discharge from, the vagina.

DCCXXV. The hurtful powers, that force abortion, are falling from a height, slipping a foot, a rash step, intense walking, running, going up and down hill. This disease seldom, however, happens but to persons previously weak; and the most powerful agent in bringing it on, is some taint left since a former abortion, which encreases in proportion to the number of abortions. When the disease happens in consequence of the local hurting powers, just now mentioned, in that case it is perfectly local: But when debility is blended with the effect of those powers it is a case of combination of general with local affection (z).

DCCXXVI.

(z) All the words here, from "præcesserint" in the original, are an addition. The words in the Latin are,
" Qui,

DCCXXVI. The indication for preventing the disease is, to guard against all the hurting powers that induce the disease; to ride out, when the patient has any degree of strength; but, *in case of any apprehension of danger from weakness*, to go in a carriage, which will be more safe; to be upon guard from the third month of pregnancy till the seventh is passed; to invigorate the system, and keep up the patient's spirits, and intellectual amusements.

DCCXXVII. The indication of cure is, to keep the body in a horizontal position, with the buttocks higher than the head; to be studious to keep the patient easy in body and mind; to repair the loss of blood with soups; to secure the vessels, for the purpose of contracting their enlarged diameters, with wine and opiates, and, in that way, take off, at the same time, the atony and laxity, which are the principal cause of the discharge.

“ Qui, cum, post locales offensas, modo relatas, sine imbecillitate accidit, tum prorsus localis est; commixta cum illis offensis imbecillitate, cum locali malo commune intermiscetur.” These are distinctions not ostentatious, not frivolous, much less misleading, but of indispensable necessity to the understanding of the subject.

Of difficult Child-Labour.

DCCXXVIII. In difficult child-labour, the most common cause of which by far is weakness, and which always produces weakness when it proves lingering; the laying-in woman should be supported with wine, and when the labour proves more difficult, and is now like to be tedious, opium should be administered.

DCCXXIX. When now some part of the uterus is hurt by the hurting powers that have been mentioned (a), and the child and placenta are now both delivered, the woman should be kept in an horizontal posture, as *was recommended* in abortion; she should be invigorated by soups, chicken, wine and the *still* higher stimuli; every thing contrary should be avoided; and the healing up of the wound waited for.

Of deep-seated Wounds.

DCCXXX. In deep-seated, or *gun-shot*, wounds, when the ball, if a ball occasioned

(a) See par. DCCXXV.

the wound, is now extracted, or though it still remains in *the body*, in a place not necessary to life; first of all the whole system is very much irritated, heated, pained, chafed, and distressed with restlessness and tossing; the pulse is strong, full, and more frequent than in health. The cause of all those symptoms is the commotion, which, as we have said, the local stimulus, either of the ball or of the inflammation supervening upon the wound, by its constant irritation of a sensible part, gives to the whole system.

DCCXXXI. Because, in this case asthenic diathesis is commonly supposed to arise over the whole body, upon account of the irritation from the wound; the antisthenic plan of cure is, therefore, always employed through the whole course of the disease; and the use of opium, which, *in this case* is conjoined with the antisthenic, or stimulant remedies, is admitted only for the purpose of acting as a sedative and duller of pain, is admitted: Consequently, upon account of the fear of a fever being to supervene, though often a great quantity of blood is lost by the wound; still large bleeding is practised, the belly is purged, nourishment is withheld, abstinence enjoined:

The

The most frequent consequence of which treatment is death, and never a recovery, that is not owing to accident (*b*).

DCCXXXIII. But all this is a method of cure *conducted upon* an erroneous theory, which is proved by all the principles of this doctrine, and by the very unfortunate issue of that practice. In a person, who has lost a great deal of blood, an over-proportion of blood can never be the cause of sthenic diathesis: Neither can any tolerable reason be assigned for the profuse evacuation of the serous fluid, or for not *rather* supplying new fluids by the use of food. It is in vain to accuse frequency of the pulse, as a sign of an excess in the quantity of blood, and of too much vigour, or of any irritation that wants an antisthenic plan of cure: For, besides its hardness, if the pulse is not, at the same time, strong and full; it has been now often above demonstrated, that all its celerity depends upon debility and penury of blood (*c*). Finally, as the sthenic diathesis depends upon the general

(*b*) The words in the end of this paragraph are thus corrected, "Unde mors sæpissime, salus, nis; casus, nunquam."

(*c*) See par. CLXXIX. to CLXXXI.

sthenic hurtful powers, as the energy of pain, from local affection, and particularly inflammation, has no tendency to induce that diathesis, but *the contrary one of* debilitating (*d*) ; that is another reason for the supposition of the habit, either remaining such as it was before the wound *was received* (*e*), or, which is more probable, of degenerating into the asthenic diathesis. Lastly, the true explanation of the distinction betwixt irritation and sthenic diathesis is in confirmation of the same *conclusion* ; the sthenic diathesis being that state of the system, which is produced by all the powers, the operation in common to which is stimulant, over the whole system, and, by a fulness in the vessels, producing the same effect, and to be removed by debilitating powers weakening also the whole system, and by evacuant remedies acting by the same general operation ; whereas, on the contrary, it is irritation, or that state, in which the whole body

(*d*) DCCV.

(*e*) Which can hardly happen if blood has been lost, which must diminish the excitement, and in proportion to its degree.

is often, without any stimulus, debilitated (*f*); and often a local stimulus, such as distention exciting spasm, or a concentrated acid, inducing convulsion, or the pain of a wound that producing the general commotion here (*g*), and effect enormous motions in a weakened system.

(*f*) When the body is debilitated, the ordinary stimuli, that in its healthy state invigorate it, and even a much less degree of stimulus, will produce the irregular motions, which are supposed owing to irritation; not that any thing irritating is applied, but that the excessive abundance, or defect of excitability, admits not, without such effects, the degree of stimulus, which, applied to it in its healthy half-wasted state, would produce healthy and vigorous motions. (See XXV. and XXVI. and the addition.) The tumors that are occasioned by the turning of a door upon its hinge, the sweat occasioned by slight exertions in walking, are so many instances of that, and the irregularities of the pulse are owing to the same cause. As the weakness upon which fevers depends encreases, so also do the supposed symptoms of irritation, such as colliquative sweats, colliquative diarrhoea, subsultus tendinum, &c. But they are all the effect of the general weakened state being fluttered by very slight stimuli. At other times irritating powers, in the same weakened state, do occur; such as those mentioned in the text.

(*g*) But even in that case, the real state is debility, and the indication of cure is to remove it, as well as the irritating powers: Which, while they encrease it, are at the same time its offspring, and require stimulants to enable the system to resist effect. (DCLXXXVIII.)

But,

But, whether the debility be without stimulus, or excited by it, there is never occasion for debilitating evacuant remedies, but always for moderately stimulant ones: And we have only to take care, that the sthenic diathesis be not produced by the method employed for the cure, and thereby a general disease, at least, a predisposition to general disease be superadded to the local, which could not fail to aggravate the latter.

DCCXXXIII. As, therefore, the antisthenic plan of cure is not to be practised, from an apprehension of a fever being about to come on, with a view to allay the disturbance *arising* from it; which has the contrary tendency, that of inducing the fever, and of exciting the disturbance *apprehended*; so, neither is the stimulant plan to be attempted, till the wound is healed, or the disease has arrived at an advanced stage, and a great deal of debility is now induced by the continuance of the pain, least, *if that method should be sooner employed*, the blood should be carried with more rapidity than the case would admit of, and with an encreased momentum, into the *still* open terminations of the vessels: For it is understood, that neither diathesis takes place
in

in this case, and that the only *affection* present is a commotion over the system, depending upon local affection; and that, consequently, there is no occasion for the remedies of either; excepting this single consideration, that, as the loss of blood, in proportion to its degree, has a tendency to produce more or less of asthenic diathesis; there will, therefore, in that proportion, be occasion for some sthenic remedies.

DCCXXXIV. During the first days of the disease, because the patient, *all at once*, does not any longer engage in gestation, exercise, and the other functions both of body and mind, and of passion or emotion, according to custom; and, of course, less nourishment and recruit is now required; therefore, there should be such an abatement in his allowance of the usual stimuli, as to accommodate what is used to the present condition of the system and the state of the wound just now described (*b*). Therefore, to prevent too great an impetus in the vessels, silence should be kept around the patient, he should not speak himself, he should lie quiet and without mo-

(*b*). See last paragraph.

tion, his posture should not be changed but to avoid the disagreeable feeling of too long continuance of it, and even then it should be done as warily as possible. He should make his water lying, *and* in an urinal; he should rather use soups, than solid meat; his wound should be examined every day, for the sake of keeping it clean; its progress should be observed; it should be dressed with fresh, soft, and bland matter; and if even at this early period, any faintishness appears, a glass of wine should not be withheld.

DCCXXXV. After some days, *which may be* more, or fewer, according to the strength of the patient, when now the habit is rushing into debility, upon account of the greatness or long continuance of the pain; *in that case*, besides the soups formerly allowed, meat as rich and delicate as possible should be given; wine should be administered sparingly at a time, but often, and upon the whole in large quantity; and then, at last, recourse should be had to opium, which, in the common practice, is usually given from the beginning *of the disease*, and to the other diffusible stimuli; and the disease should be treated precisely in the same way as a typhus.

DCCXXXVI.

DCCXXXVI. When very tender external parts are violated by any rude matter, such as *happens* in that case, where a thorn is pushed below any of the nails, and an inflammation spreads from the affected part to a considerable extent, and then, upon account of the great sensibility of the part, the whole body is drawn into consent; the injured part should be fomented with warm water, and dressed with lint, and soft, and bland ointment: And as long as the disturbance of the system remains, the patient should be kept quiet, and free from motion, and nothing more attempted.

C H A P. IV.

*Of a Part of a General Disease, degenerating
into a Local.*

DCCXXXVII. TO set about the treatment of that division of local, organic, diseases; in which a part, or *symptom*, of general disease degenerates into a local one; we next proceed to

Suppuration.

DCCXXXVIII. Suppuration, with which we begin, is for the most part a consequence of any general inflammation, whether sthenic, or asthenic, or that inflammation, which is a symptom of general diseases, or it is a consequence of local inflammation, whether sthenic, or asthenic, as a symptom of local affection. In it the pulse is softer, fuller, and a little slower, than in sthenic disease, when that precedes it; but a great deal slower, than in asthenic disease, if it happen to supervene upon it, and it is accompanied with an undulatory, and, as it were, a pulsatory, motion

motion of the labouring part; these symptoms are commonly preceded by a shivering: If the affection is internal, the patient should be kept quiet, and free from motion, and be stimulated; if it be external, the affected part should, over and above, be fomented, dressed, and covered, and the pus, when ripe, let out.

Of Pustle.

DCCXXXIX. A pustle is a purulent vesicle, turgid, and at last of its own accord opening in consequence of having become tender, and full of pus.

DCCXL. It follows the small pox, arising from the contagion peculiar to that disease: In the small pox the number of the pustules is greater or less in proportion, as more or less sthenic diathesis, occasioned by improper treatment, or a neglect of the proper, has preceded (a).

DCCXLI. The indication of cure for them is, first to remove sthenic diathesis, and then, if that has passed into the asthenic,

(a) XXI. LXXVI. XCVI. XCVII. XCVIII.

to remove it, each by its respective remedies ; and to besprinkle the pustles with a strong spirit, or with laudanum, and in the former case to guard against cold, in the latter against heat, and to open the pustles and foment them.

Of Anthrax.

DCCXLII. Anthrax is a glandular tumour under the skin, gangrenous in the top, and inflamed in its edges all round.

Of Bubo.

DCCXLIII. Bubo is a glandular tumour, especially affecting the one or the other groin, and of a tendency to suppuration.

DCCXLIV. These two affections, *the anthrax and bubo*, as well as carbuncle, are almost always combined with a general disease, to wit, sometimes with typhus, much oftener with the plague. They depend upon a contagious matter, and, in so far as they do not sufficiently yield to the general remedies, they must be treated with a very strong spirit poured upon

upon them, and with laudanum, and opening them.

Of Gangrene.

DCCXLV. Gangrene is an imperfect inflammation of a part, not terminating in supuration, discoloured, scarce painful, consisting of pustules of a bad matter, and at last inducing the death of the part.

DCCXLVI. The hurtful power, that precedes gangrene, is always inflammation, often ultimately violent in a sensible part, oftener languid, and occupying a part less sensible, less supported by the powers of life (*b*); it is sometimes a symptom of the phlegmasiæ, sometimes of fevers, sometimes of local phlegmone (*c*).

DCCXLVII. The method of cure, when the gangrene is seated in the alimentary canal, is to pour in spirit and laudanum; when the shut viscera are affected, to place some hope

(*b*) The inflammation, out of which gangrene arises, is always unsupported, and the gangrene always a state of either direct or indirect debility; the high excitement in the phlegmasiæ, and the low in fevers, causing that.

(*c*) CCCXLVII. DCL. to DCLXXXIX.

in the same and other stimuli, but *much* less. And, as the same remedies also suit gangrene, when it is external, consequently liquid opium should be rubbed in upon the dying part, spirit would be poured upon it, the parts already dead should be cut out, the edge of the living part all round should be stimulated, and an inflammation made in it.

Of Sphacelus.

DCCXLVIII. Sphacelus is a more perfect and more extended gangrene, with an extinction of sense, motion, and heat; in which the part becomes soft, blackish, completely black, putrid, and at last thoroughly putrid to the very bones, thoroughly cadaverous, and shifts rapidly to the neighbouring parts, and quickly extinguishes life.

DCCXLIX. The remedies are in general the same as in gangrene, but they should be stronger, and administered in greater quantity, and with greater nicety, and in less expectation of a cure. When any limb is greatly affected, it should be immediately cut off, to prevent the sound parts from being infected (*d*).

(*d*) An addition

of

Of Scrofulous Tumor and Ulcer.

DCCL. When a scrofulous tumor and ulcer has been of long standing, has disfigured the parotid gland and neighbouring parts, and all the remedies, that have any effect in removing scrofula, have been employed; after that no more is to be done, but to keep the aling part clean, bath it often, and defend it from the injury of the air; unless that, as local debility also takes place here, spirit and laudanum, applied to the part, may be of service.

Of Schirrous Tumor.

DCCLI. When the tumor, which, while it was moderate, was a part or symptom of the general disease, called schirrhus, has now attained a certain bulk; if it be external, or situated in the exterior or convex part of the liver, it should be cut off, and the system invigorated: If it be internal, nothing can be attempted, but to prevent its encrease by stimulant remedies, and in that way keep the patient as long alive as possible, and in as good

health as the present circumstances will admit of.

DCCLII. The two heads of division that remain (*e*), are of so obscure and abstract a nature, that, if ever they are to be attempted, they must be passed over at present. The third head (*f*) is here only imperfectly sketched and scarce begun : But, because it both admits of a complete execution, and when so executed, will make an important addition to the work ; it shall be prepared for the public perusal, as soon as I shall be happy enough to find as much leisure and scope for thinking as are requisite to rescue the subject from its present intricacy, disorder, and obscurity.

(*e*) DCXCIII. and DCXCIV.

(*f*) DCXCII. DCCXXXVII. to DCCLII.

F I N I S.

ERRATA TO THE FIRST VOLUME.

Page	Line	for	read
31.	penult.	include	includes
68.	antepenult.	The cause, &c.	The cause of the general diseases here alluded to
72.	18.	locales	local
77.	12.	CXI.	XCI.
79.	12.	tis	its
83.	2.	has	had
98.	19.	by	of
99.	26.	(r)	(g)
107.	7.	effects	affects
109.	22.	indirect	direct
112.	25.	all	all,
Ditto.	30.	laxaty	laxity
133.	14.	or	nor
141.	17.	drink—latter;	drink; with the latter
156.	6.	happen	happens
172.	14.	vomity,	vomiting,
175.	penult.	several erroneous	old
186.	2.	involuntary	voluntary
187.	24.	at others	sometimes
190.	16.	Sydenham by his	Sydenham's
203.	12.	degrees	degree
209.	23.	that	that,
212.	ultim.	afterwards;	afterwards
Ditto.	Ditto.	eruption,	eruption;
224.	ultim.	them ?	it ?
233.	23.	several erroneous	principles of the old
234.	antepenult.	stimulus,	stimulus, opium, a sedative.
244.	ditto.	maxime que	maximeque
246.	10.	weakly	weakly,
252.	ultim.	its—60.	the—60 will bring on a shenic cough.
256.	8.	equisite	exquisite
287.	penult.	in vita	invita
294.	4.	far	far as
299.	10.	system that,	system is, that,
300.	5.	durasible	durable
301.	24.	use; which	use;
Ditto.	penult.	yigour	vigour

ERRATA TO THE SECOND VOLUME.

Page	Line	for	read
7.	penult.	copias augendas	copiæ augendæ
10.	16.	diathesis,	diathesis ;
10.	17.	operation ;	operation,
14.	2.	alkatriol	alkali
15.	12.	given in	given
25.	10.	were move	we remove
33.	3. 4.	life, or, &c.	life, are the same, or the fundamental principle of agriculture.
38.	3.	patalous	patulous
44.	1.	band	bond
46.	21.	that, in	that. In
Ibid.	30.	cafes that,	cafes,
47.	17.	yet there	yet, that there
55.	23.	equal	equally
59.	17.	and	and,
Ibid.	18.	that,	that
Ibid.	22.	genius	genus
66.	2.	parenchy matose	parenchymatose
89.	5.	as that	as it has
112.	11.	(r)	(s)
Ibid.	14.	(s)	(r)
126.	15.	companyment	companiment
140.	21.	accompanyment	accompaniment
151.	2.	feen	feen,
154.	penult.	effoliffa	effoliffa
162.	8.	as sthenic	asthenic
181.	ultim.	cloaths	cloths
195.	23.	an	any
209.	12.	heat a	heat. A
217.	20.	those	they
Ibid.	penult.	vexations	vexatious
213.	7.	misentery	mesentery
218.	4.	Cysterrhæa	Cystirrhæa
228.	6.	Cysterrhæa	Cystirrhæa
234.	4.	embecility	imbecility
234.	9.	year	year of my age,
234.	27.	is both	are both
250.	24.	inavoidable	unavoidable
258.	4.	with both	with both,

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